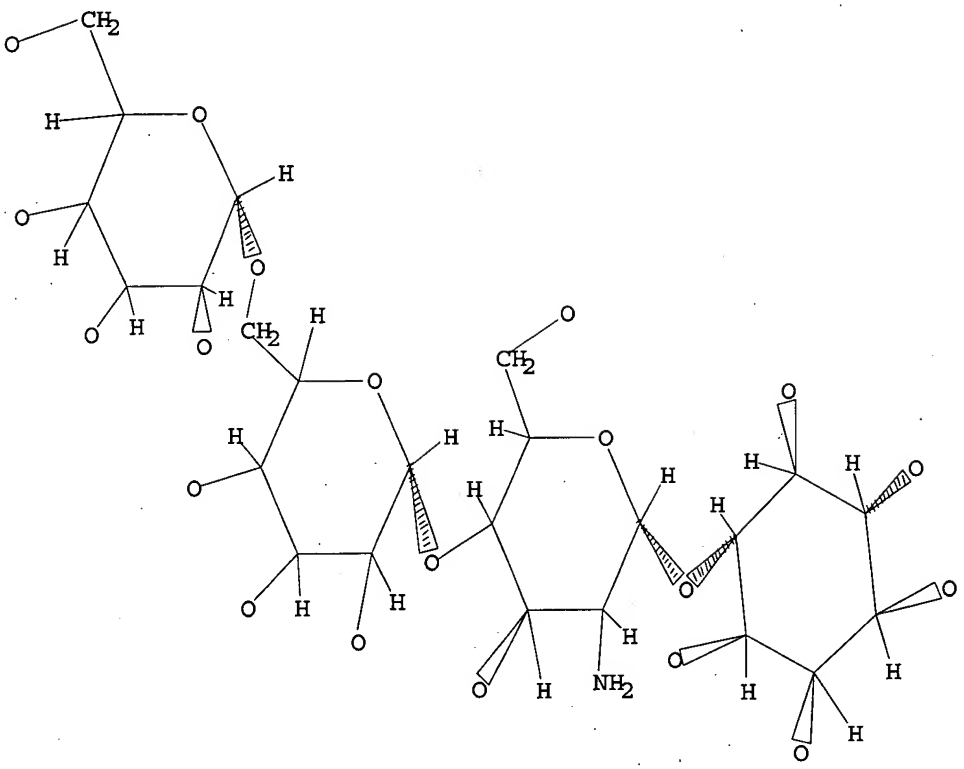
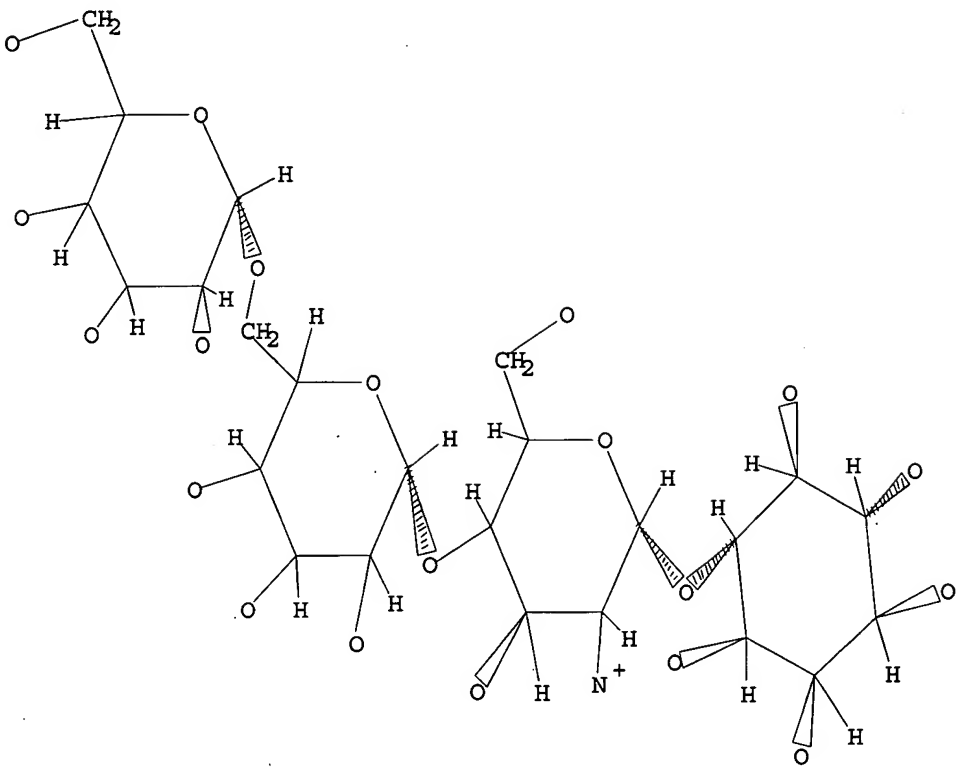
=> D l1
L1 HAS NO ANSWERS
L1 STR



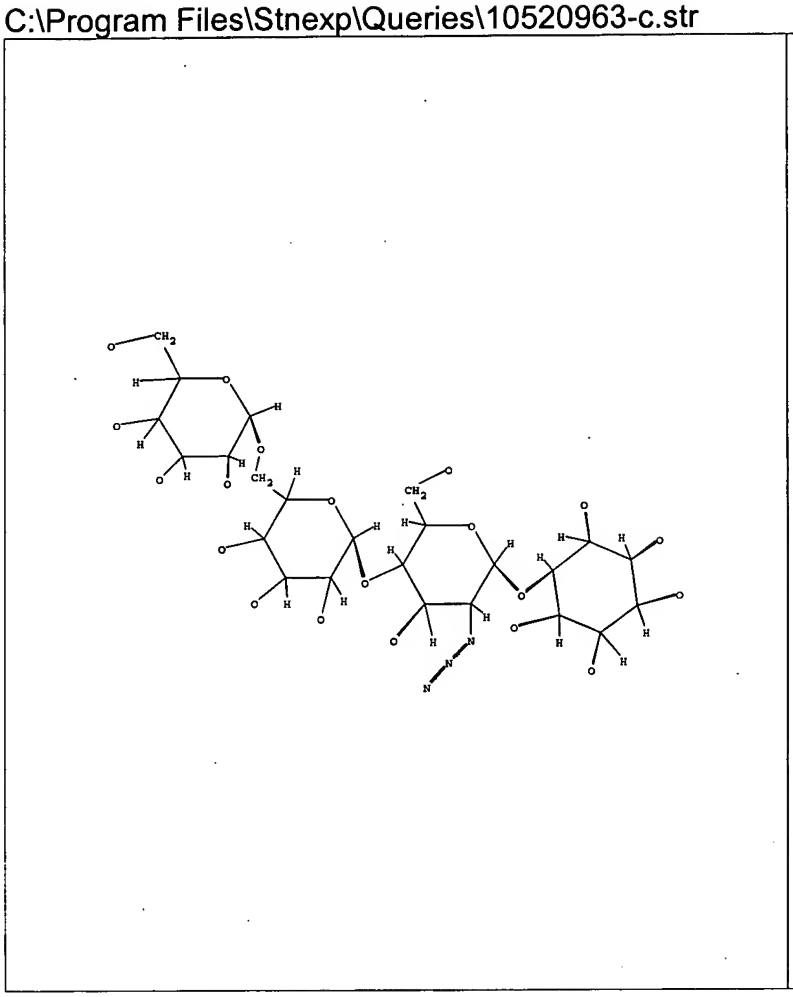
Structure attributes must be viewed using STN Express query preparation.

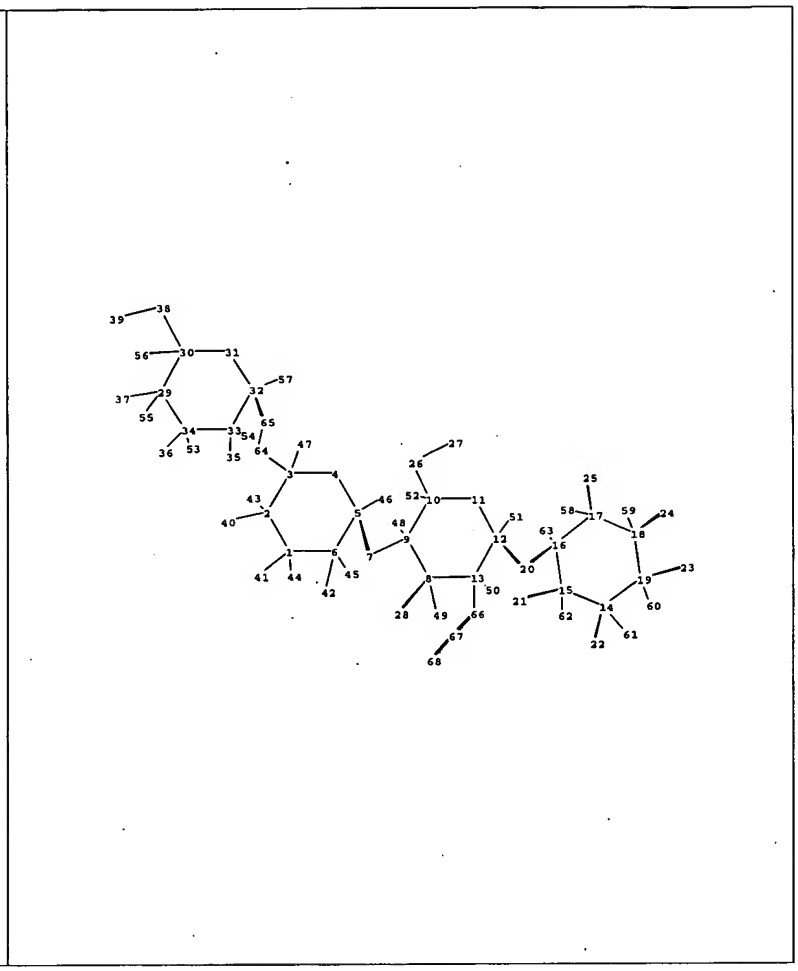
=> d l4
L4 HAS NO ANSWERS
L4 STR



Structure attributes must be viewed using STN Express query preparation.

C:\Program Files\Stnexp\Queries\10520963-c.str





chain nodes :
7 20 21 22 23 24 25 26 27 28 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68

ring nodes :
1 2 3 4 5 6 8 9 10 11 12 13 14 15 16 17 18 19 29 30 31 32 33 34

chain bonds :
1-41 1-44 2-40 2-43 3-47 3-64 5-7 5-46 6-42 6-45 7-9 8-28 8-49 9-48 10-26 10-52 12-51 12-20 13-50 13-66 14-22 14-61 15-21 15-62 16-20 16-63 17-25 17-58 18-24 18-59 19-23 19-60 26-27 29-37 29-55 30-38 30-56 32-57 32-65 33-35 33-54 34-36 34-53 38-39 64-65 66-67 67-68

ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-13 9-10 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 29-30 29-34 30-31 31-32 32-33 33-34

exact/norm bonds :
1-2 1-6 1-41 2-3 2-40 3-4 4-5 5-6 5-7 6-42 7-9 8-9 8-13 8-28 9-10 10-11 11-12 12-13 12-20 13-66 14-15 14-19 14-22 15-16 15-21 16-17 16-20 17-18 17-25 18-19 18-24 19-23 29-30 29-34 29-37 30-31 31-32 32-33 32-65 33-34 33-35 34-36 66-67 67-68

exact bonds :
1-44 2-43 3-47 3-64 5-46 6-45 8-49 9-48 10-26 10-52 12-51 13-50 14-61 15-62 16-63 17-58 18-59 19-60 26-27 29-55 30-38 30-56 32-57 33-54 34-53 38-39 64-65

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS

25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom
35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS
45:CLASS 46:CLASS 47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS 54:CLASS
55:CLASS 56:CLASS 57:CLASS 58:CLASS 59:CLASS 60:CLASS 61:CLASS 62:CLASS 63:CLASS 64:CLASS
65:CLASS 66:CLASS 67:CLASS 68:CLASS

Stereo Bonds:

7-5 (Single Hash).
20-16 (Single Hash).
20-12 (Single Hash).
21-15 (Single Wedge).
22-14 (Single Wedge).
23-19 (Single Wedge).
24-18 (Single Hash).
25-17 (Single Wedge).
28-8 (Single Wedge).
35-33 (Single Wedge).
65-32 (Single Hash).

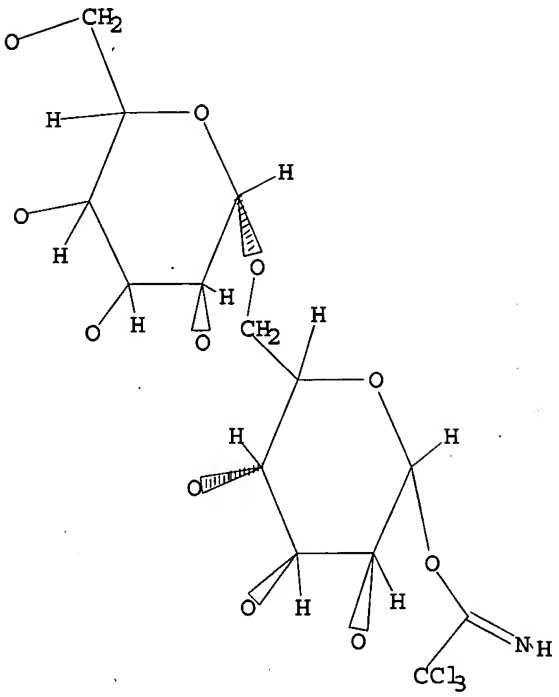
Stereo Chiral Centers:

5 (Parity=Even)
8 (Parity=Even)
12 (Parity=Even)
14 (Parity=Even)
15 (Parity=Odd)
16 (Parity=Even)
17 (Parity=Odd)
18 (Parity=Even)
19 (Parity=Even)
32 (Parity=Even)
33 (Parity=Odd)

Stereo RSS Sets:

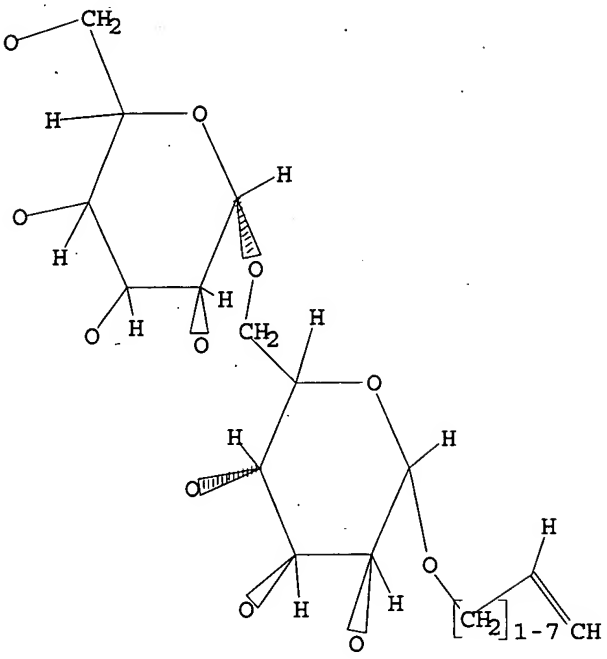
Type=Relative (Default). 10 Nodes= 5 8 12 14 15 16 17 18 19 32
Type=Relative (Default). 1 Nodes= 33

=> d L10
L10 HAS NO ANSWERS
L10 STR



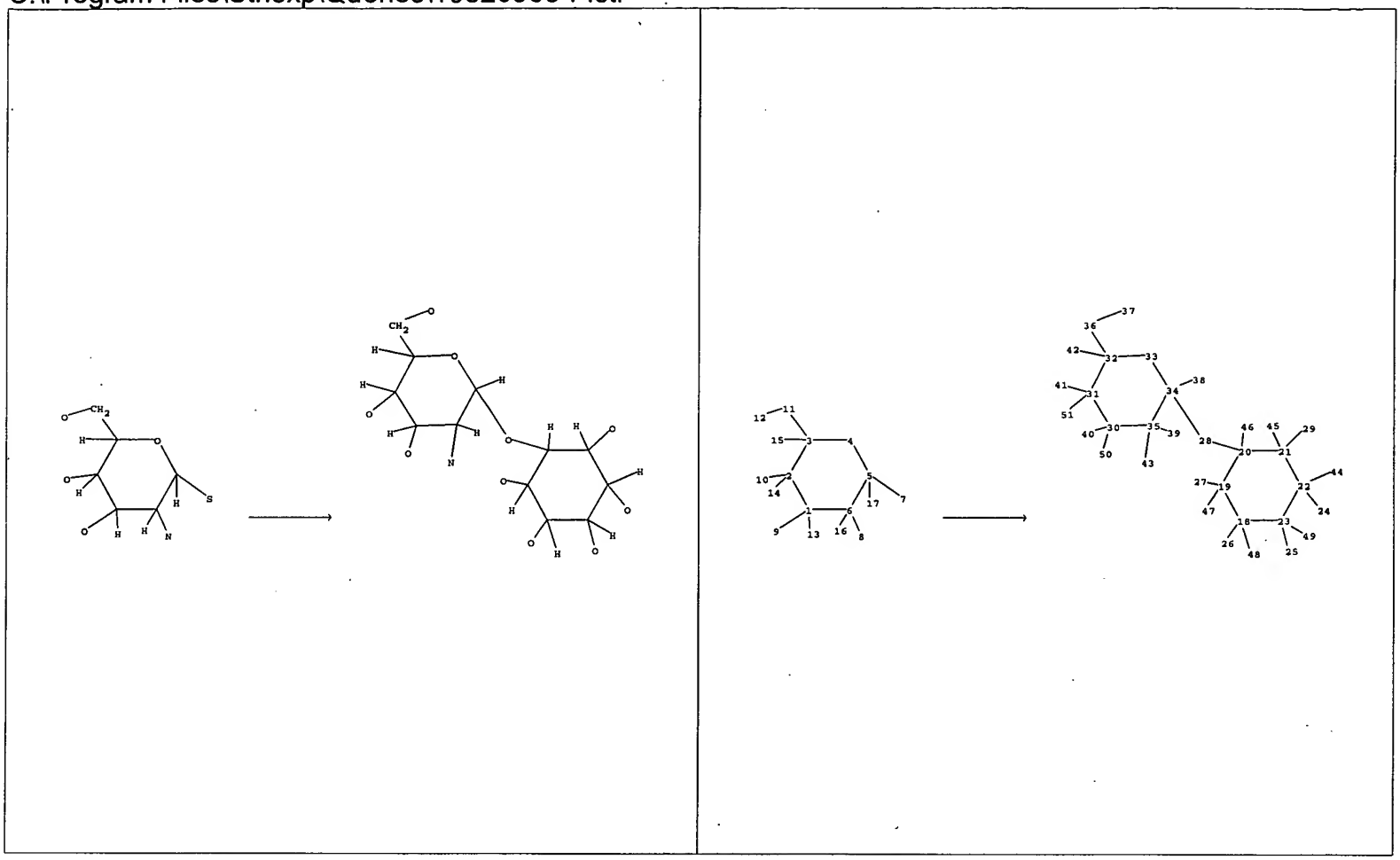
Structure attributes must be viewed using STN Express query preparation.

=> d l13
L13 HAS NO ANSWERS
L13 STR



Structure attributes must be viewed using STN Express query preparation.

C:\Program Files\Stnexp\Queries\10520963-F.str



chain nodes :
7 8 9 10 11 12 13 14 15 16 17 24 25 26 27 28 29 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51

ring nodes :
1 2 3 4 5 6 18 19 20 21 22 23 30 31 32 33 34 35

chain bonds :
1-9 1-13 2-10 2-14 3-11 3-15 5-7 5-17 6-8 6-16 11-12 18-26 18-48 19-27 19-47 20-28 20-46 21-29 21-45 22-24 22-44 23-25 23-49 28-34 30-40 30-50 31-41 31-51 32-36 32-42 34-38 35-39 35-43 36-37

ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 18-19 18-23 19-20 20-21 21-22 22-23 30-31 30-35 31-32 32-33 33-34 34-35

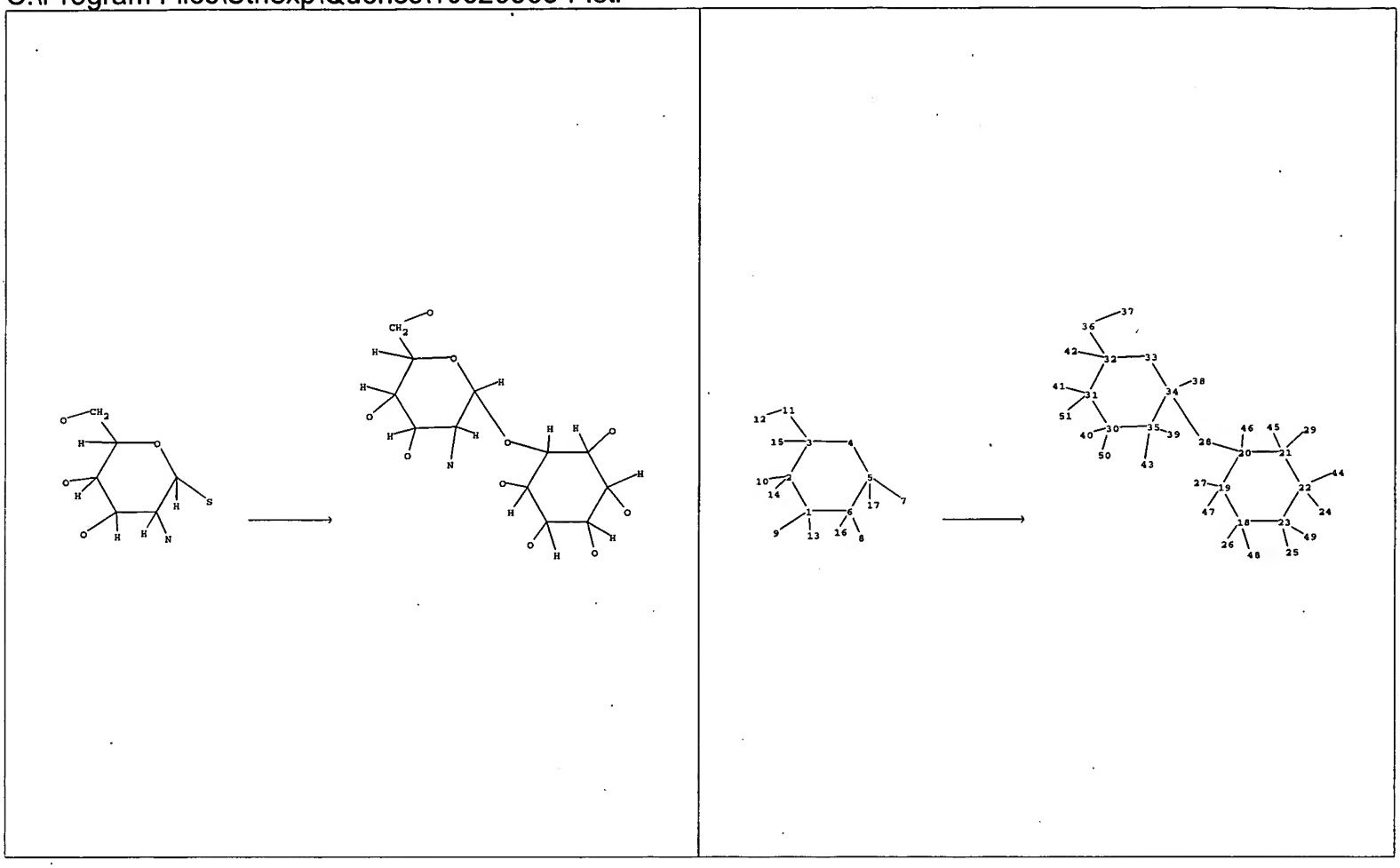
exact/norm bonds :
1-2 1-6 1-9 2-3 2-10 3-4 4-5 5-6 5-7 6-8 18-19 18-23 18-26 19-20 19-27 20-21 20-28 21-22 21-29 22-23 22-24 23-25 28-34 30-31 30-35 30-50 31-32 31-51 32-33 33-34 34-35 35-43

exact bonds :
1-13 2-14 3-11 3-15 5-17 6-16 11-12 18-48 19-47 20-46 21-45 22-44 23-49 30-40 31-41 32-36 32-42 34-38 35-39 36-37

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom

36:CLASS 37:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS
45:CLASS 46:CLASS 47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS
fragments assigned product role:
containing 18
fragments assigned reactant/reagent role:
containing 1

C:\Program Files\Stnexp\Queries\10520963-F.str



chain nodes :
7 8 9 10 11 12 13 14 15 16 17 24 25 26 27 28 29 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
ring nodes :
1 2 3 4 5 6 18 19 20 21 22 23 30 31 32 33 34 35
chain bonds :
1-9 1-13 2-10 2-14 3-11 3-15 5-7 5-17 6-8 6-16 11-12 18-26 18-48 19-27 19-47 20-28 20-46 21-29 21-45 22-24 22-44 23-25 23-49 28-34 30-40 30-50 31-41 31-51 32-36 32-42 34-38 35-39 35-43 36-37
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 18-19 18-23 19-20 20-21 21-22 22-23 30-31 30-35 31-32 32-33 33-34 34-35
exact/norm bonds :
1-2 1-6 1-9 2-3 2-10 3-4 4-5 5-6 5-7 6-8 18-19 18-23 18-26 19-20 19-27 20-21 20-28 21-22 21-29 22-23 22-24 23-25 28-34 30-31 30-35 30-50 31-32 31-51 32-33 33-34 34-35 35-43
exact bonds :
1-13 2-14 3-11 3-15 5-17 6-16 11-12 18-48 19-47 20-46 21-45 22-44 23-49 30-40 31-41 32-36 32-42 34-38 35-39 36-37

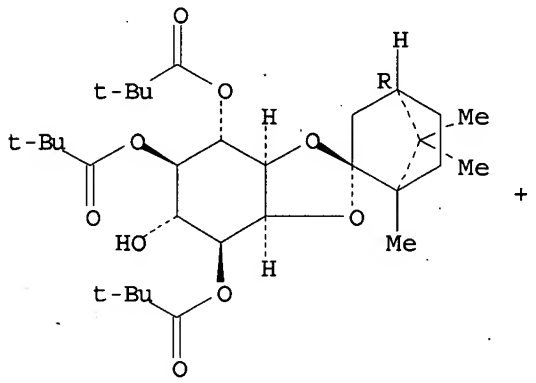
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom

36:CLASS37:CLASS38:CLASS39:CLASS40:CLASS41:CLASS42:CLASS43:CLASS44:CLASS
45:CLASS46:CLASS47:CLASS48:CLASS49:CLASS50:CLASS51:CLASS
fragments assigned product role:
containing 18
fragments assigned reactant/reagent role:
containing 1

L3 2 ANSWERS CASREACT COPYRIGHT 2006 ACS on STN

TI Synthesis of the Core Tetrasaccharide of Trypanosoma cruzi Glycoinositolphospholipids: Manp(α1→6)-Manp(α1→4)-6-(2-aminoethylphosphonic acid)-GlcNp(α1→6)-myo-Ins-1-PO4

RX(124) OF 240 - 6 STEPS



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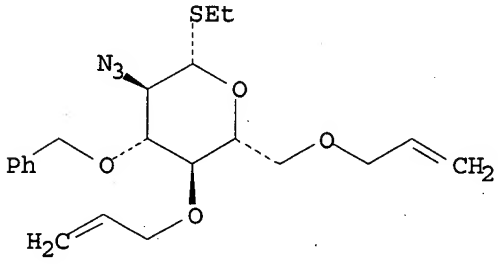

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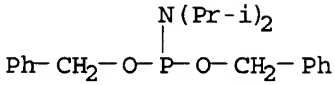
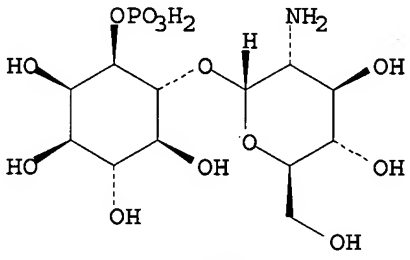


RX(124) OF 240 - 6 STEPS

3.1. Me2C(OMe)2 →



90%

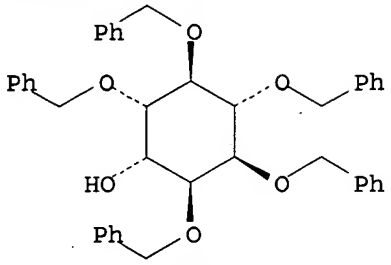
NOTE: 1) stereoselective, MS used

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 2 ANSWERS CASREACT COPYRIGHT 2006 ACS on STN

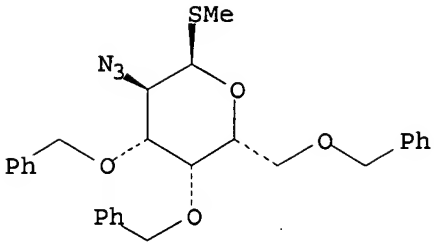
TI Synthesis of galactosaminyl D-chiro-inositols

RX(23) OF 208



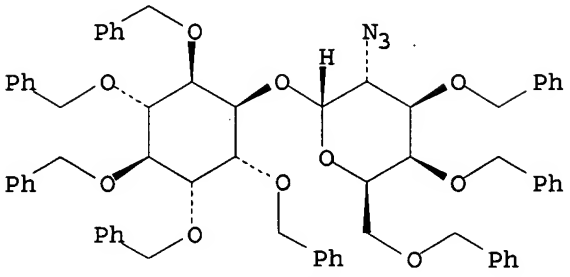
(step 2)

+



(step 2)

1. PhSeCl, PhMe
2. AgO3SCF3, PhMe
3. NaHCO3, Water



67%

NOTE: stereoselective

ALL ANSWERS HAVE BEEN SCANNED

ACCESSION NUMBER: 145:145963 CASREACT
TITLE: Synthesis of galactosaminyl D-chiro-inositols
AUTHOR(S): Marnera, Georgia; d'Alarcao, Marc
CORPORATE SOURCE: Michael Research Building, Department of Chemistry, Tufts University, Medford, MA, 02155, USA
SOURCE: Carbohydrate Research (2006), 341(9), 1105-1116
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB All six isomeric D-galactosaminopyranosyl-D-chiro-inositols have been prepared by glycosylation of appropriate penta-O-benzyl-D-chiro-inositols. The three requisite protected D-chiro-inositols were prepared by SmI2-promoted pinacol coupling of dialdehydes derived ultimately from L-arabinose.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 143:367472 CASREACT
TITLE: Synthesis of the Core Tetrasaccharide of Trypanosoma cruzi Glycoinositolphospholipids: Manp(α1→6)-Manp(α1→4)-6-(2-aminoethylphosphonic acid)-GlcNp(α1→6)-myo-Ins-1-PO4
AUTHOR(S): Hederos, Markus; Konradsson, Peter
CORPORATE SOURCE: Division of Chemistry, IFM, Linkoeping University, Linkoeping, SE-581 83, Swed.
SOURCE: Journal of Organic Chemistry (2005), 70(18), 7196-7207
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Synthesis of the core tetrasaccharide Manp(α1→6)-Manp(α1→4)-6-(2-aminoethylphosphonic acid)-GlcNp(α1→6)-myo-Ins-1-PO4, found in glycoinositolphospholipids of Trypanosoma cruzi parasites, is described. The key building block, 6-O-(2-azido-3-O-benzyl-6-O-((2-benzyloxycarbonylaminoethyl)phosphonic acid benzyl ester)-2-deoxy-α-D-glucopyranosyl)-1-di-O-benzylphosphoryl-4,5-O-isopropylidene-2,3-O-(D-1,7,7-trimethyl[2,2,1]bicyclohept-6-ylidene)-D-myo-inositol, was synthesized using a partially protected glucosyl D-camphorinositolphosphate and a (2-benzyloxycarbonylaminoethyl)phosphonic acid derivative in a regioselective phosphonate esterification. Elongation with Et 2-O-benzoyl-3,4,6-tri-O-benzyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzyl-1-α-D-thiomannopyranoside using dimethyl(methylthio)sulfonium trifluoromethanesulfonate gave a fully protected tetrasaccharide which was successfully deprotected subsequently with sodium methoxide, sodium in liquid ammonia, and aq hydrochloric acid to give title compound
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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TITLE: Synthesis of the Core Tetrasaccharide of Trypanosoma cruzi Glycoinositolphospholipids: Manp(α1→6)-Manp(α1→4)-6-(2-aminoethylphosphonic acid)-GlcNp(α1→6)-myo-Ins-1-PO4
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CODEN: JOCEAH; ISSN: 0022-3263
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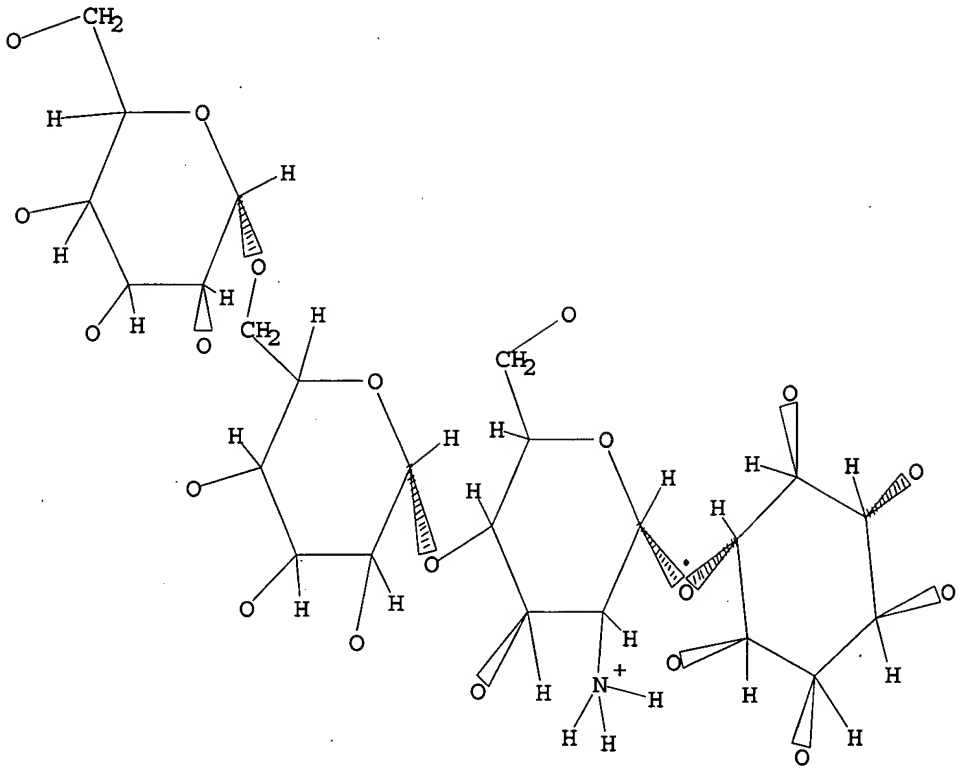
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 145:145963 CASREACT
TITLE: Synthesis of galactosaminyl D-chiro-inositols
AUTHOR(S): Marnera, Georgia; d'Alarcao, Marc
CORPORATE SOURCE: Michael Research Building, Department of Chemistry, Tufts University, Medford, MA, 02155, USA
SOURCE: Carbohydrate Research (2006), 341(9), 1105-1116
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB All six isomeric D-galactosaminopyranosyl-D-chiro-inositols have been prepared by glycosylation of appropriate penta-O-benzyl-D-chiro-inositols. The three requisite protected D-chiro-inositols were prepared by SmI2-promoted pinacol coupling of dialdehydes derived ultimately from L-arabinose.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam
SAMPLE SEARCH INITIATED 17:36:01 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 578 TO ITERATE

100.0% PROCESSED 578 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 10118 TO 13002
PROJECTED ANSWERS: 0 TO 0

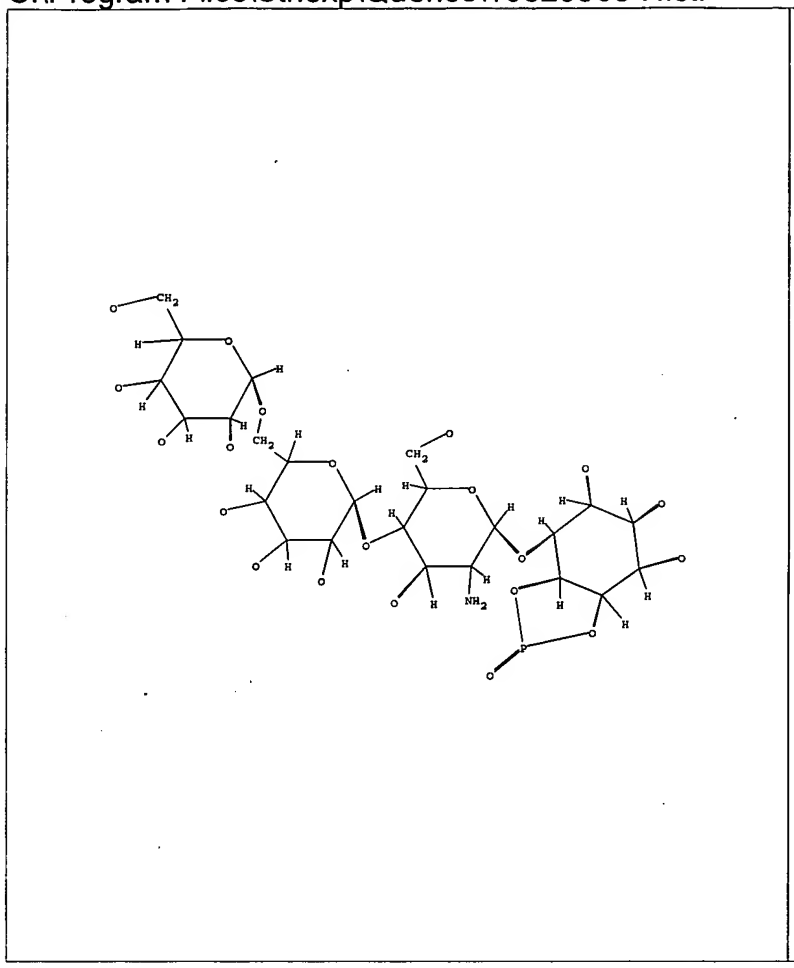
L2 0 SEA SSS SAM L1

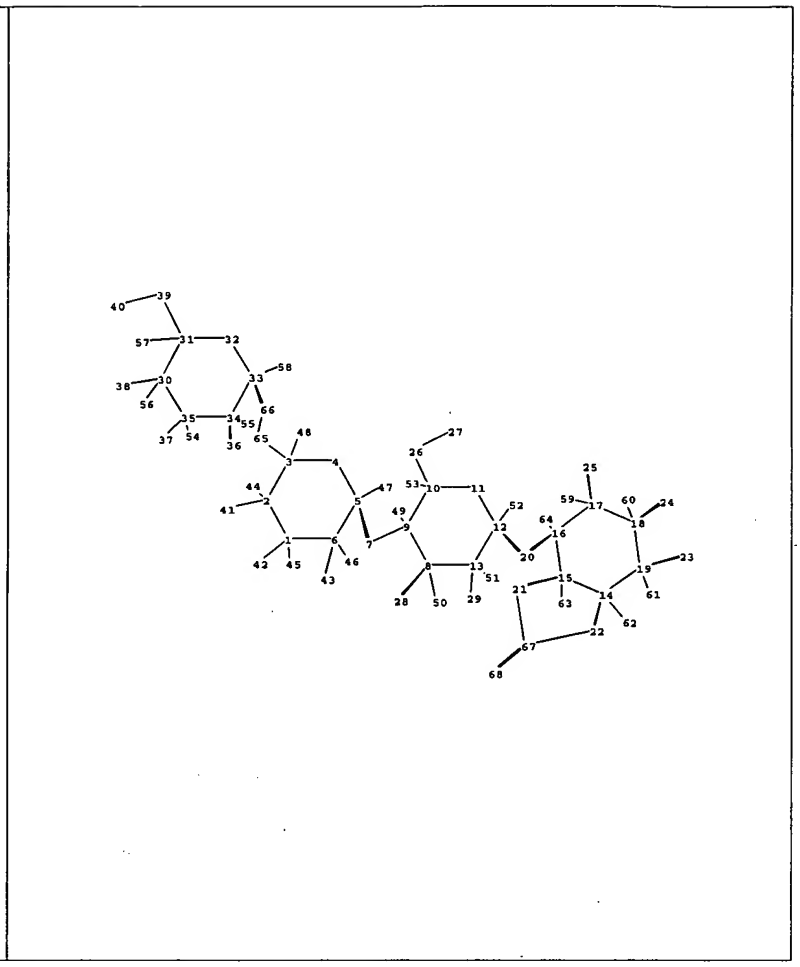
=> s l1 sss full
FULL SEARCH INITIATED 17:36:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 11666 TO ITERATE

100.0% PROCESSED 11666 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

C:\Program Files\Stnexp\Queries\10520963-H.str





chain nodes :
7 20 23 24 25 26 27 28 29 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 68

ring nodes :
1 2 3 4 5 6 8 9 10 11 12 13 14 15 16 17 18 19 21 22 30 31 32 33 34 35 67

chain bonds :
1-42 1-45 2-41 2-44 3-48 3-65 5-7 5-47 6-43 6-46 7-9 8-28 8-50 9-49 10-26 10-53 12-52 12-20 13-29 13-51 14-62 15-63 16-20 16-64 17-25 17-59 18-24 18-60 19-23 19-61 26-27 30-38 30-56 31-39 31-57 33-58 33-66 34-36 34-55 35-37 35-54 39-40 65-66 67-68

ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-13 9-10 10-11 11-12 12-13 14-15 14-19 14-22 15-16 15-21 16-17 17-18 18-19 21-67 22-67 30-31 30-35 31-32 32-33 33-34 34-35

exact/norm bonds :
1-2 1-6 1-42 2-3 2-41 3-4 4-5 5-6 5-7 6-43 7-9 8-9 8-13 8-28 9-10 10-11 11-12 12-13 12-20 13-29 14-15 14-19 14-22 15-16 15-21 16-17 16-20 17-18 17-25 18-19 18-24 19-23 21-67 22-67 30-31 30-35 30-38 31-32 32-33 33-34 33-66 34-35 34-36 35-37 67-68

exact bonds :
1-45 2-44 3-48 3-65 5-47 6-46 8-50 9-49 10-26 10-53 12-52 13-51 14-62 15-63 16-64 17-59 18-60 19-61 26-27 30-56 31-39 31-57 33-58 34-55 35-54 39-40 65-66

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS

25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:CLASS 37:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS 47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS 54:CLASS 55:CLASS 56:CLASS 57:CLASS 58:CLASS 59:CLASS 60:CLASS 61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS 66:CLASS 67:Atom 68:CLASS

Stereo Bonds:

7-5 (Single Hash).
20-16 (Single Hash).
20-12 (Single Hash).
21-15 (Single Wedge).
22-14 (Single Wedge).
23-19 (Single Wedge).
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25-17 (Single Wedge).
28-8 (Single Wedge).
36-34 (Single Wedge).
66-33 (Single Hash).

Stereo Chiral Centers:

5 (Parity=Even)
8 (Parity=Even)
12 (Parity=Even)
14 (Parity=Even)
15 (Parity=Odd)
16 (Parity=Even)
17 (Parity=Odd)
18 (Parity=Even)
19 (Parity=Even)
33 (Parity=Even)
34 (Parity=Odd)

Stereo RSS Sets:

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L1 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:946806 CAPLUS
DOCUMENT NUMBER: 140:235957
TITLE: Synthesis of two oligosaccharides, the GPI anchor glycans from S. cerevisiae and A. fumigatus
AUTHOR(S): Ma, Zuchao; Zhang, Jianjun; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, Beijing, 100085, Peop. Rep. China
SOURCE: Carbohydrate Research (2004), 339(1), 29-35
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:235957
AB Two oligosaccharides, α-D-Manp-(1→2)-α-D-Manp-(1→2)-α-D-Manp-(1→6)-α-D-Manp-(1→4)-α-D-GlcpNAc (I) and α-D-Manp-(1→3)-α-D-Manp-(1→2)-α-D-Manp-(1→2)-α-D-Manp-(1→6)-α-D-Manp-(1→4)-α-D-GlcpNAc (II), the glycosylphosphatidylinositol (GPI) anchor glycans from S. cerevisiae and A. fumigatus were synthesized as their Me glycosides in a regio- and stereoselective manner. The pentasaccharide I was obtained from 6-O-selective glycosylation of Me 2,3-di-O-benzoyl-α-D-mannopyranosyl-(1→4)-2-acetamido-3,6-di-O-benzoyl-2-deoxy-α-D-glucopyranoside (III) with 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D- mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D- mannopyranosyl trichloroacetimidate, followed by benzoylation, deacetylation, and mannosylation, and then by deprotection. The hexasaccharide II was obtained via condensation of allyl 3,4,6-tri-O-benzoyl-α-D- mannopyranosyl -(1→2)-3,4,6-tri-O-benzoyl-α-D- mannopyranoside with 2,3,4,6-tetra-O-benzoyl-α-D- mannopyranosyl -(1→3)-2,4,6-tri-O-acetyl-α-D- mannopyranosyl trichloroacetimidate, followed by deallylation, trichloroacetimidation, and coupling with acceptor III, and finally by deprotection.
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 2003579115 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14659668
TITLE: Synthesis of two oligosaccharides, the GPI anchor glycans from S. cerevesiae and A. fumigatus.
AUTHOR: Ma Zuchao; Zhang Jianjun; Kong Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, P.O. Box 2871, Beijing 100085, China.
SOURCE: Carbohydrate research, (2004 Jan 2) Vol. 339, No. 1, pp. 29-35.
Journal code: 0043535. ISSN: 0008-6215.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200408
ENTRY DATE: Entered STN: 16 Dec 2003
Last Updated on STN: 7 Aug 2004
Entered Medline: 6 Aug 2004
AB Two oligosaccharides, alpha-D-Manp-(1-->2)-alpha-D-Manp-(1-->2)-alpha-D-Manp-(1-->6)-alpha-D-Manp-(1-->4)-alpha-D-GlcpNAc (I) and alpha-D-Manp-(1-->3)-alpha-D-Manp-(1-->2)-alpha-D-Manp-(1-->2)-alpha-D-Manp-(1-->6)-alpha-D-Manp-(1-->4)-alpha-D-GlcpNAc (II), the glycosylphosphatidylinositol (GPI) anchor glycans from S.

cerevesiae and A. fumigatus were synthesized as their methyl glycosides in a regio- and stereoselective manner. The pentasaccharide I was obtained from 6-O-selective glycosylation of methyl 2,3-di-O-benzoyl-alpha-D-mannopyranosyl-(1-->4)-2-acetamido-3,6-di-O-benzoyl-2-deoxy-alpha-D-glucopyranoside (8) with 2-O-acetyl-3,4,6-tri-O-benzoyl-alpha-D-mannopyranosyl-(1-->2)-3,4,6-tri-O-benzoyl-alpha-D-mannopyranosyl trichloroacetimidate (9), followed by benzoylation, deacetylation, and mannosylation, and then by deprotection. The hexasaccharide (II) was obtained via condensation of allyl 3,4,6-tri-O-benzoyl-alpha-D-mannopyranosyl-(1-->2)-3,4,6-tri-O-benzoyl-alpha-D-mannopyranoside (17) with 2,3,4,6-tetra-O-benzoyl-alpha-D-mannopyranosyl-(1-->3)-2,4,6-tri-O-acetyl-alpha-D-mannopyranosyl trichloroacetimidate (16), followed by deallylation, trichloroacetimidation, and coupling with acceptor (8), and finally by deprotection.

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:722177 CAPLUS
DOCUMENT NUMBER: 136:53965
TITLE: Synthesis of the Fully Phosphorylated GPI Anchor Pseudohexasaccharide of Toxoplasma gondii
AUTHOR(S): Pekari, Klaus; Tailler, Denis; Weingart, Ralf; Schmidt, Richard R.
CORPORATE SOURCE: Fachbereich Chemie, Universitaet Konstanz, Konstanz, D-78457, Germany
SOURCE: Journal of Organic Chemistry (2001), 66(22), 7432-7442
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:53965
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Retrosynthesis of the fully phosphorylated glycosylphosphatidyl inositol (GPI) anchor pseudohexasaccharide I led to four building blocks, two of which are known. The formation of the glucopyranosyl D-myo-inositol pseudodisaccharide building block is based on a readily available protected D-myo-inositol building block, which gave, via the 6-O-unprotected derivative and its glycosylation with known glucopyranosyl donor, the desired compound Building block allyl 2-O-benzoyl-3-O-benzyl-6-O-(4-methoxybenzyl)-α-D-mannopyranoside, with the required access to all hydroxy groups being permitted, was prepared from mannose in five steps. From a readily available precursor, building block 3,4,6-tri-O-benzyl-2-deoxy-2-trichloroacetamido-α-D-galactopyranosyl trichloroacetimidate was obtained, which on reaction with allyl 2-O-benzoyl-3-O-benzyl-6-O-(4-methoxybenzyl)-α-D-mannopyranoside gave the disaccharide. The synthesis of the decisive pseudohexasaccharide intermediate was based on the reaction of the disaccharide with 3,4,6-tri-O-benzyl-2-acetyl-α-D-mannopyranosyl trichloroacetimidate, then with 6-O-t-butyldiphenylsilyl-3,4-di-O-benzyl-2-acetyl-α-D-mannopyranosyl trichloroacetimidate, and finally with the glucopyranosyl D-myo-inositol pseudodisaccharide building block. To obtain high stereoselectivity and good yields in the glycosylation reactions, anchimeric assistance was employed. To enable regioselective attachment of the two different phosphorus esters, the 6f-O-silyl group of the pseudohexasaccharide intermediate was first removed and the aminoethyl phosphate residue was attached. Then the MPM group was oxidatively removed, and the second phosphate residue was introduced. Unprotected I was then liberated in two steps: treatment with sodium methanolate removed the acetyl protecting groups, and finally, catalytic hydrogenation afforded the desired target mol., which could be fully structurally assigned.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1328930 CAPLUS
DOCUMENT NUMBER: 144:64386
TITLE: Glycosylphosphatidylinositol (GPI) glycan signaling via integrins functioning as glycan-specific receptors
INVENTOR(S): Schofield, Louis
PATENT ASSIGNEE(S): The Walter and Eliza Hall Institute of Medical Research, Australia
SOURCE: PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005120519	A1	20051222	WO 2005-AU842	20050610

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AU 2004-903183 A 20040610

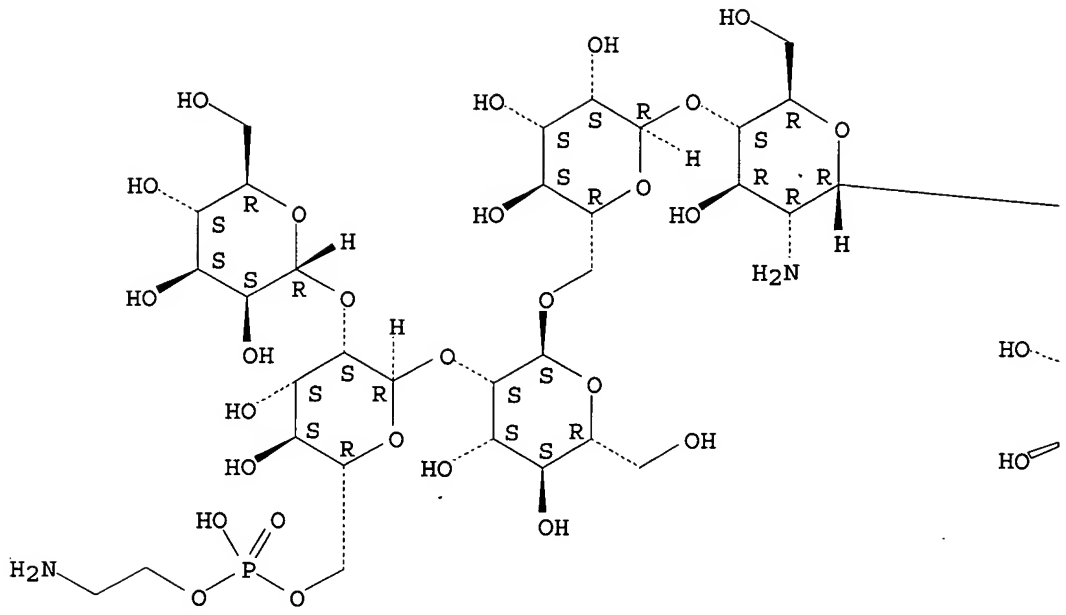
AB The invention discloses a method for modulating integrin-mediated cellular activity and agents useful for same. More particularly, the invention discloses a method for modulating αβ-integrin-mediated cellular activity by modulating GPI-related signaling. The method of the invention is useful e.g. in the treatment and/or prophylaxis of conditions characterized by aberrant, unwanted, or otherwise inappropriate integrin-mediated cellular activity. The invention further discloses methods for identifying and/or designing agents capable of modulating the integrin-dependent signaling mechanism.

IT 460095-54-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(glycosylphosphatidylinositol glycan signaling via integrins functioning as glycan-specific receptors)

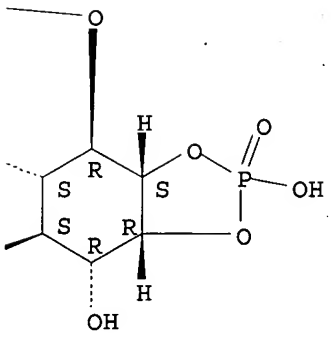
RN 460095-54-9 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1187093 CAPLUS
DOCUMENT NUMBER: 144:70038
TITLE: An anionic inositol phosphate glycan pseudo-tetrasaccharide exhibits high insulin-mimetic activity in rat adipocytes
AUTHOR(S): Chakraborty, Nilanjana; d'Alarcao, Marc
CORPORATE SOURCE: Michael Chemistry Laboratory, Department of Chemistry, Tufts University, Medford, MA, 02155, USA
SOURCE: Bioorganic & Medicinal Chemistry (2005), 13(24), 6732-6741

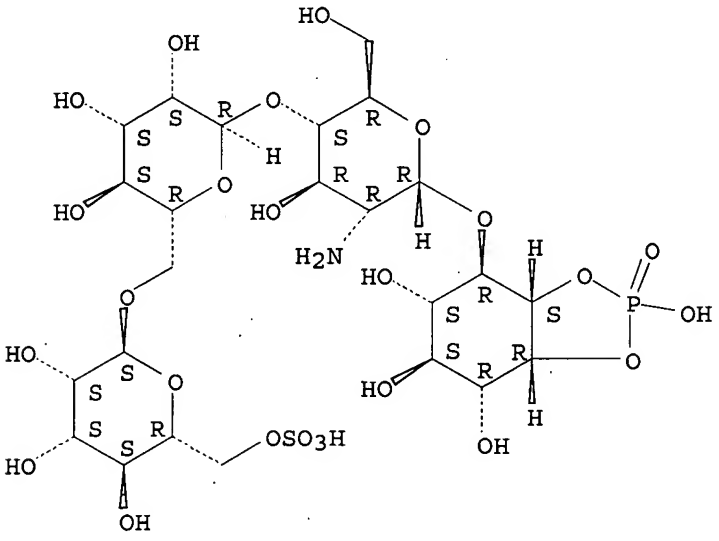
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Inositol phosphate glycan pseudo-tetrasaccharides consisting of man-(α1-6)-man-(α1-4)-glcN-(α,β1-6)-myo-inositol-1,2-cyclic phosphate possessing a sulfate group at either O-6 or O-2 of the terminal mannose have been prepared Title compds. were able to stimulate lipogenesis in native rat adipocytes to 78% of the maximal insulin response (MIR) with an EC50 of 1.1 μM. The other compds. exhibited lower maximal stimulations (47-63% MIR) and higher EC50 values (9.5-10.6 μM).

IT 871710-47-3P 871710-54-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of anionic inositol phosphate glycan pseudo-tetrasaccharides which exhibit high insulin-mimetic activity in rat adipocytes)

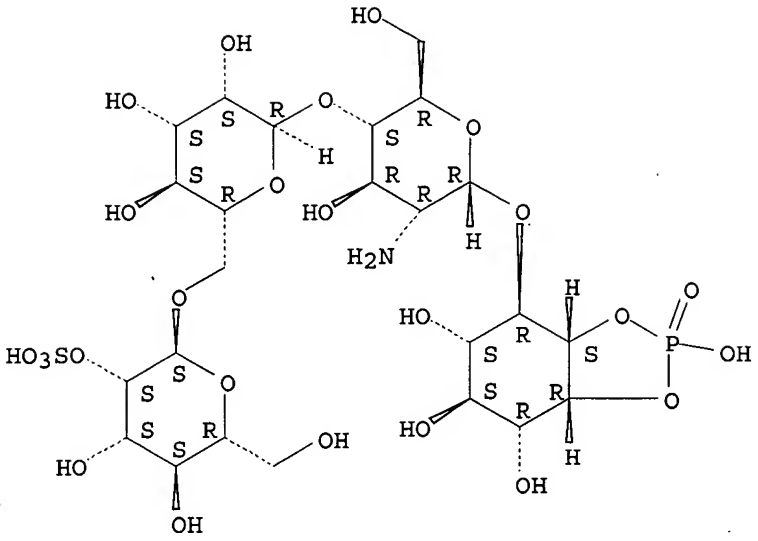
RN 871710-47-3 CAPLUS
CN D-myo-Inositol, O-6-O-sulfo-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 871710-54-2 CAPLUS
CN D-myo-Inositol, O-2-O-sulfo-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

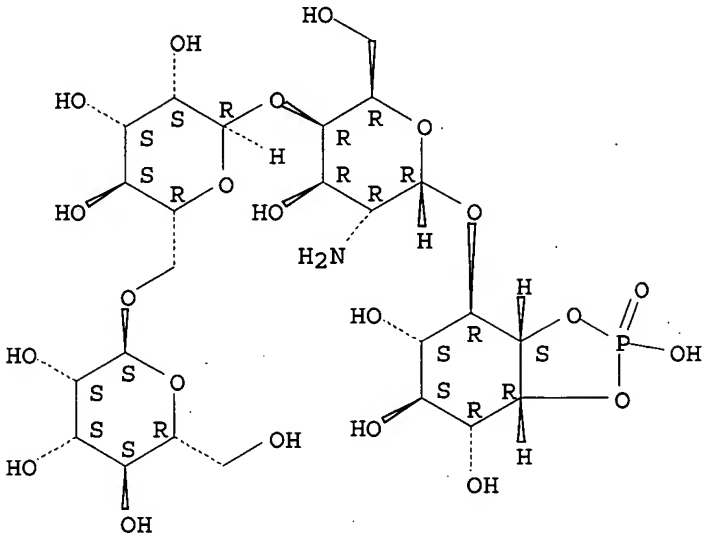
L7 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:168047 CAPLUS
DOCUMENT NUMBER: 142:406438
TITLE: Design and synthesis of inositol-phospho-glycan putative insulin mediators
AUTHOR(S): Lopez-Prados, Javier; Cuevas, Felix; Reichardt, Niels-Christian; de Paz, Jose-Luis; Morales, Ezequiel Q.; Martin-Lomas, Manuel
CORPORATE SOURCE: Grupo de Carbohidratos, Instituto de Investigaciones Quimicas, CSIC, Seville, 41092, Spain
SOURCE: Organic & Biomolecular Chemistry (2005), 3(5), 764-786
CODEN: OBCRAK; ISSN: 1477-0520
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:406438

AB The binding modes of a series of mols., containing the glucosamine (1→6) myo-inositol structural motif, into the ATP binding site of the catalytic subunit of cAMP-dependent protein kinase (PKA) have been analyzed using mol. docking. These calcns. predict that the presence of a phosphate group at the non-reducing end in pseudo-disaccharide and pseudo-trisaccharide structures properly orient the mol. into the binding site and that pseudo-trisaccharide structures present the best shape complementarity. Therefore, pseudo-disaccharides and pseudo-trisaccharides have been synthesized from common intermediates using effective synthetic strategies. On the basis of this synthetic chemical, the feasibility of constructing small pseudo-trisaccharide libraries on solid-phase using the same intermediates has been explored. The results from the biol. evaluation of these mols. provide addnl. support to an insulin-mediated signaling system which involves the intermediacy of inositol-phospho-glycans as putative insulin mediators.

IT 850428-19-2
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(design and synthesis of pseudo-oligosaccharide inositol-phosphoglycan putative insulin mediators)

RN 850428-19-2 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-galactopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

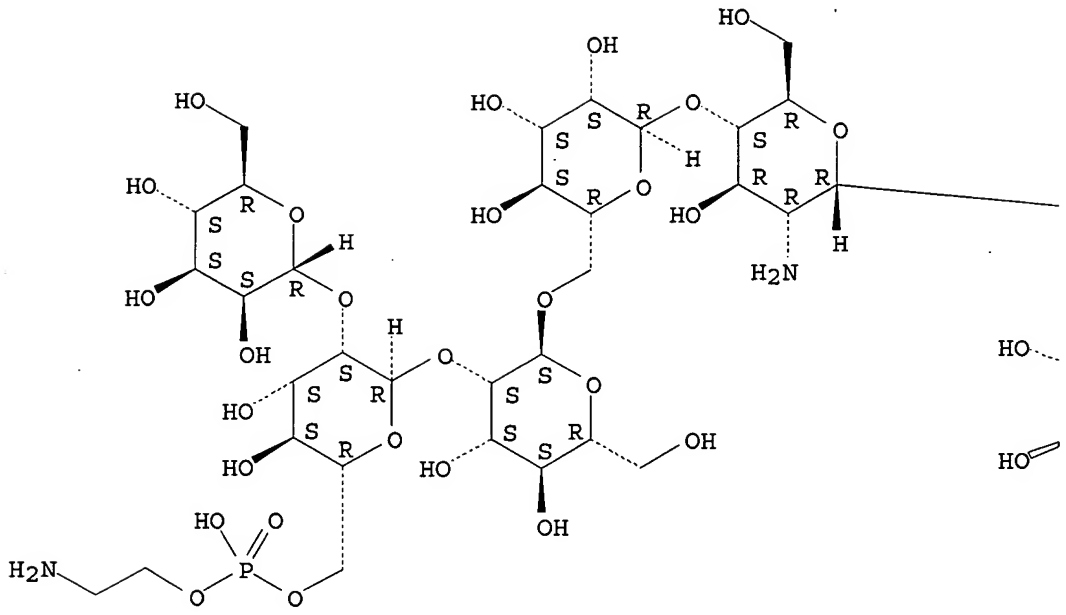


REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

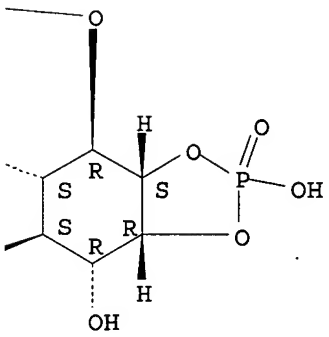
L7 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:601346 CAPLUS
DOCUMENT NUMBER: 141:296223
TITLE: A convergent, versatile route to two synthetic conjugate anti-toxin malaria vaccines
AUTHOR(S): Seeberger, Peter H.; Soucy, Regina L.; Kwon, Yong-Uk; Snyder, Daniel A.; Kanemitsu, Takuya
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2004), (15), 1706-1707
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:296223
AB The synthesis of two glycosylphosphatidyl inositol (GPI) glycans that constitute the malaria toxin and promising anti-toxin vaccine constructs using a scalable route is described. The compds. are assembled via a key 4+2 glycosylation, which allowed for the same tetrasaccharide building block to be used for the synthesis of both final GPI products.
IT 460095-54-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of two GPI glycans that constitute the malaria toxin and promising anti-toxin vaccine constructs)
RN 460095-54-9 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:101015 CAPLUS
DOCUMENT NUMBER: 140:144698
TITLE: Immunogenic compositions comprising inositolglycan domain of Plasmodium-derived glycophosphoinositide for diagnosis and therapy against malaria
INVENTOR(S): Schofield, Louis
PATENT ASSIGNEE(S): The Walter and Eliza Hall Institute of Medical Research, Australia
SOURCE: PCT Int. Appl., 134 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004011026	A1	20040205	WO 2003-AU944		20030725
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2493782	AA	20040205	CA 2003-2493782		20030725
AU 2003245127	A1	20040216	AU 2003-245127		20030725
BR 2003012985	A	20050621	BR 2003-12985		20030725
EP 1545599	A1	20050629	EP 2003-737755		20030725
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
CN 1681529	A	20051012	CN 2003-821710		20030725
US 2006147476	A1	20060706	US 2005-522494		20050906
PRIORITY APPLN. INFO.:			US 2002-398607P	P	20020726
			WO 2003-AU944	W	20030725

AB The present invention relates generally to a method of eliciting or otherwise inducing an immune response to a microorganism and compns. for use therein. More particularly, the present invention relates to a method of inducing an immune response to a parasite utilizing an immunogenic composition comprising a glycosylphosphatidylinositol (referred to herein as 'GPI') inositolglycan domain or its derivative or equivalent The present invention is useful, inter alia, as a prophylactic and/or therapeutic treatment for microorganism infections of mammals such as, for example, parasite infections and in particular infection by Plasmodium species. In another aspect the invention provides a method of diagnosing, monitoring, screening for or otherwise qual. or quant. assessing an immune response to a microorganism and, in particular, a parasite. More particularly, this aspect of the present invention is directed to assessing said immune response utilizing a GPI inositolglycan domain or its derivative or equivalent The development of this aspect of the present invention facilitates, inter alia, the qual. and/or quant. anal. of anti-GPI antibodies in a biol. sample, the identification and/or isolation of unique specificities of antibodies (such as those which bind a parasite derived toxin or the parasite itself), epitope specific screening or the rational design of immunogenic mols. and the generation , thereby, of functionally effective immunointeractive mols..

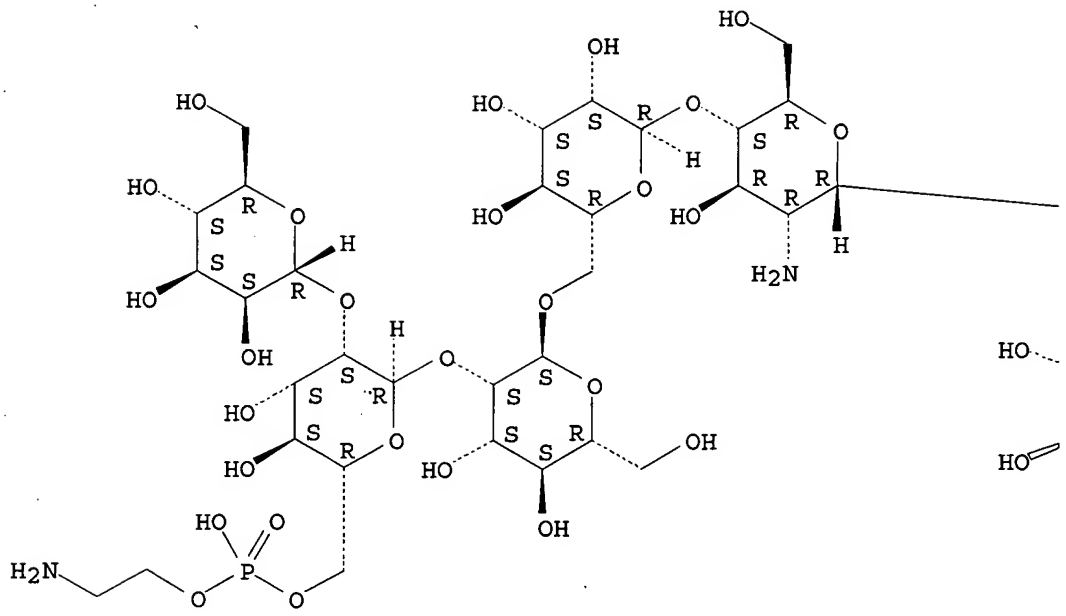
IT 460095-54-9 460095-54-9D, derivs.
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunogenic compns. comprising inositolglycan domain of Plasmodium-derived glycophosphoinositide for diagnosis and therapy against malaria)

RN 460095-54-9 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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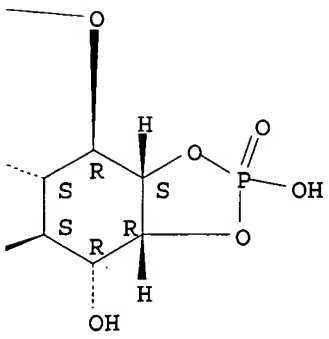
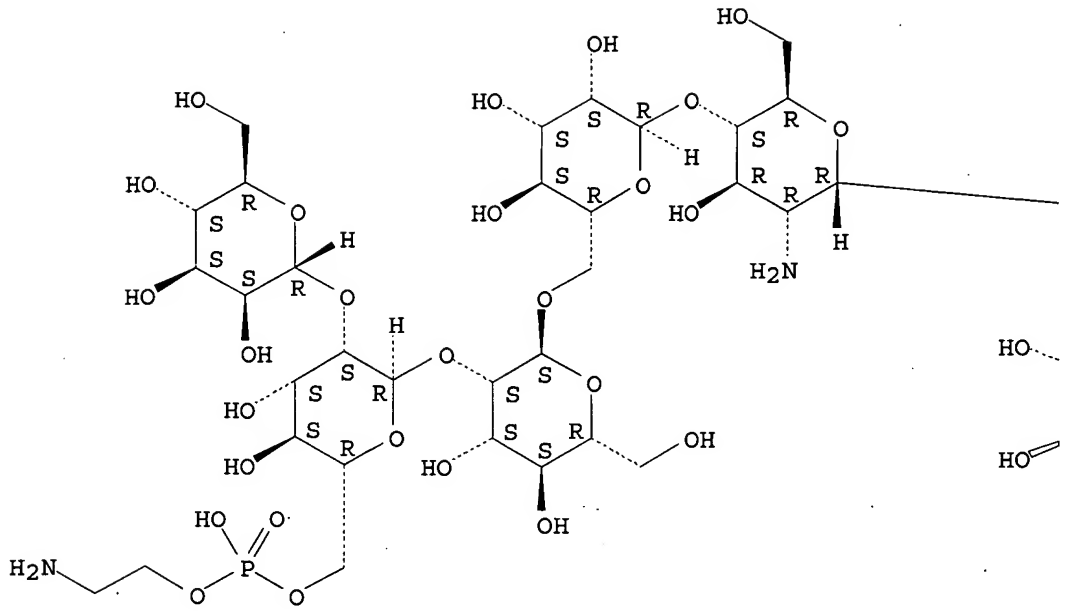


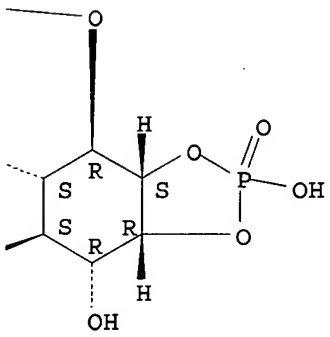
RN 460095-54-9 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

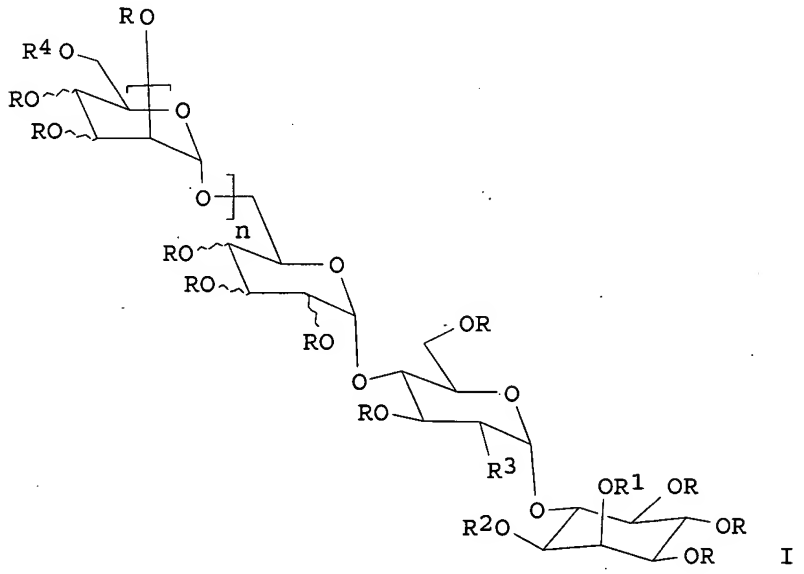
L7 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:41660 CAPLUS
DOCUMENT NUMBER: 140:77360
TITLE: Solid-phase and solution-phase synthesis of glycosylphosphatidylinositol glycans
INVENTOR(S): Seeberger, Peter H.; Hewitt, Michael C.; Snyder, Daniel
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005532	A2	20040115	WO 2003-US21564	20030710
WO 2004005532	A3	20040325		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2491555	AA	20040115	CA 2003-2491555	20030710
AU 2003248927	A1	20040123	AU 2003-248927	20030710
EP 1542703	A2	20050622	EP 2003-763439	20030710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006089330	A1	20060427	US 2005-520963	20050826
PRIORITY APPLN. INFO.:			US 2002-394794P P	20020710
			WO 2003-US21564 W	20030710

OTHER SOURCE(S): MARPAT 140:77360
GI



I

AB One aspect of the present invention relates to solution-phase synthesis approaches to glycosylphosphatidylinositol (GPI) I, wherein, n is 1-4; R represents independently for each occurrence H, alkyl, aryl, CH2-aryl, C(O)-alkyl, C(O)-aryl, or Si(alkyl)3; R1 and R2 are independently H, CH2-aryl, C(O)-alkyl, C(O)-aryl, Si(alkyl)3; or R1 and R2 taken together are C(CH3)2, P(O)OH, or P(O)OR5; R3 is amino, N3, or NH3X; R4 represents independently for each occurrence H, alkyl, aryl, CH2-aryl, C(O)- alkyl, C(O)-aryl, Si(alkyl)3, or P(O)(OR5)2; R5 represents independently for each occurrence H, Li+, Na+, K+, Rb+, Cs+, aryl, or an optionally substituted alkyl group; and X is a halogen, alkyl carboxylate, or aryl carboxylate. Another aspect of the present invention relates to key building blocks,

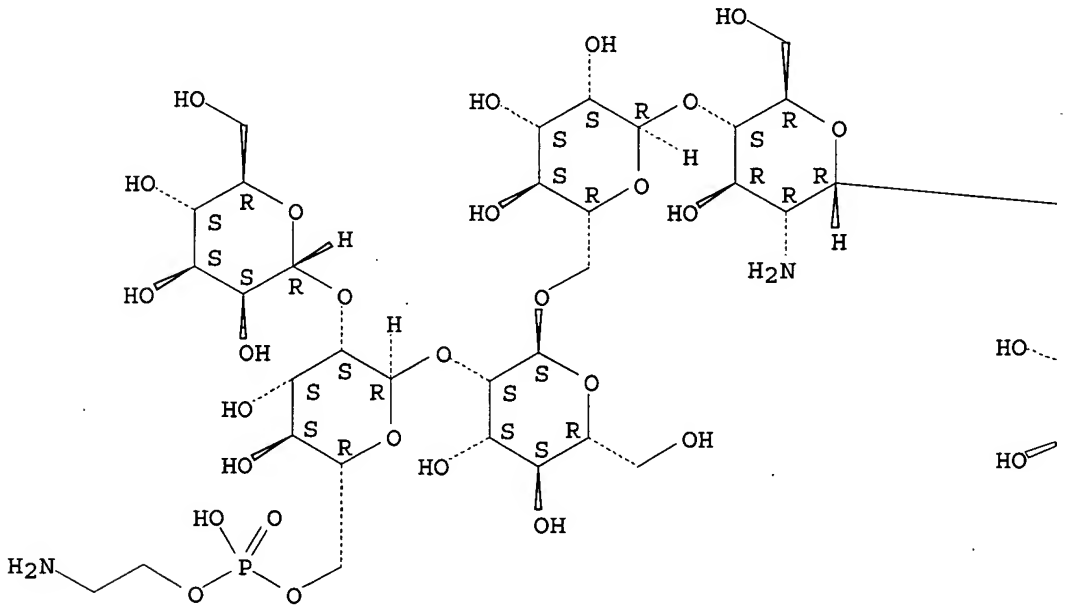
and syntheses thereof, useful for GPI assembly. Yet another aspect of the invention relates to an automated method for the synthesis of GPIs and fragments thereof. The synthesis of a pseudo-hexasaccharide glycosylphosphatidylinositol has been reduced to practice, both in solution and using a combination of solution and automated solid-phase methodologies. The material made in solution was covalently attached to a protein carrier and used to vaccinate mice. Inoculated mice were substantially protected against a subsequent challenge with Plasminodium parasites. This discovery further implicates GPI as the dominant toxin in malaria infections, and lays the groundwork for future trials in human volunteers. Combinations of solution and automated solid-phase synthetic methodologies will see continued usage in this context, and are expected to lead to the rapid generation of more potent vaccines for malaria and other maladies.

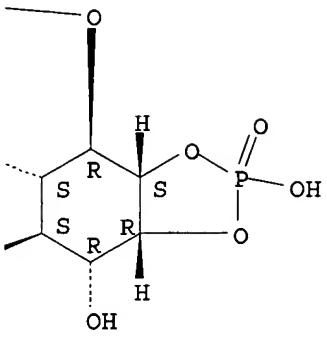
IT 460095-54-9P 640277-73-2DP, Key-Hole Limpet Haemocyanin bound
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(solid-phase and solution-phase synthesis of glycosylphosphatidylinositol glycans a vaccines against Plasminodium parasites and malaria infection)

RN 460095-54-9 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

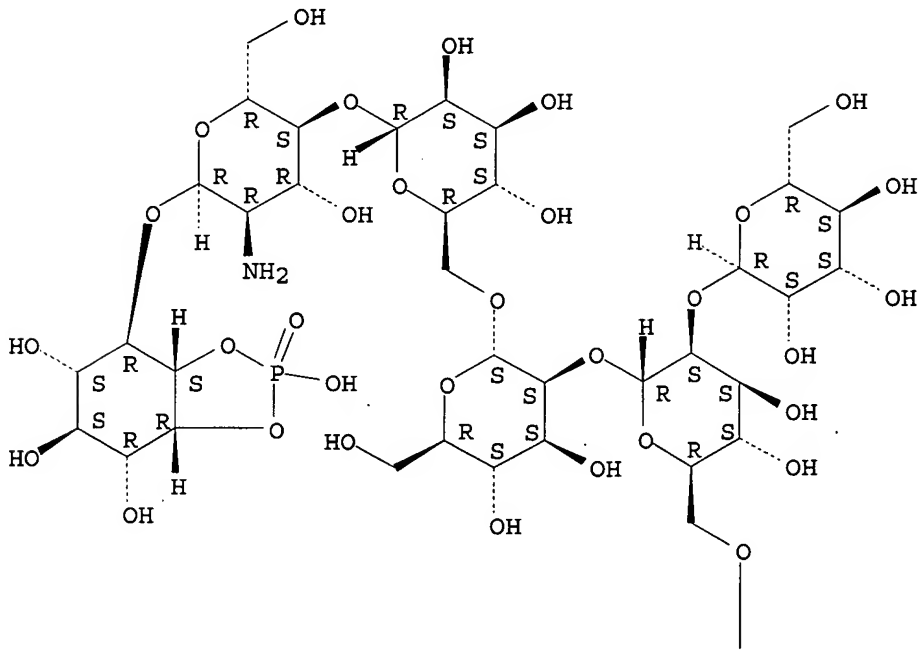
Absolute stereochemistry.





RN 640277-73-2 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[[2-[[4-[(2,5-dioxo-3-pyrrolidinyl)thio]-1-iminobutyl]amino]ethoxy]hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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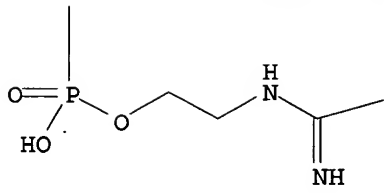
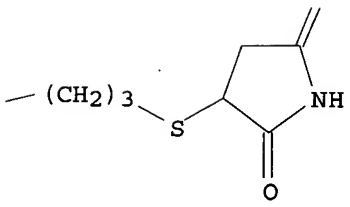
PAGE 2-A



PAGE 2-B



L7 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2004:17423 CAPLUS
DOCUMENT NUMBER:	140:72925
TITLE:	Characterization and drug screening use of phosphoinositolglycan-binding protein from plasma membrane of adipocytes
INVENTOR(S):	Mueller, Guenter; Frick, Wendelin; Schneider, Rudolf; Petry, Stefan; Urmann, Matthias
PATENT ASSIGNEE(S):	Aventis Pharma Deutschland G.m.b.H., Germany
SOURCE:	Eur. Pat. Appl., 41 pp. CODEN: EPXXDW
DOCUMENT TYPE:	Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1378517	A1	20040107	EP 2002-15047	20020705
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CA 2490572	AA	20040115	CA 2003-2490572	20030626
WO 2004005337	A1	20040115	WO 2003-EP6725	20030626
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003246590	A1	20040123	AU 2003-246590	20030626
EP 1521773	A1	20050413	EP 2003-762515	20030626
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003012417	A	20050426	BR 2003-12417	20030626
CN 1665836	A	20050907	CN 2003-815992	20030626
JP 2006514916	T2	20060518	JP 2004-518576	20030626
CN 1817903	A	20060816	CN 2006-10057471	20030626
US 2004229278	A1	20041118	US 2003-470606	20030703
US 7049416	B2	20060523		
NO 2005000639	A	20050401	NO 2005-639	20050204
US 2006160142	A1	20060720	US 2006-377531	20060316

PRIORITY APPLN. INFO.:		
EP 2002-15047	A	20020705
CN 2003-815992	A3	20030626
WO 2003-EP6725	W	20030626
US 2003-470606	A3	20030703

AB The invention refers to a protein from plasma membrane of adipocytes. The protein has specific binding affinity to phosphoinositolglycans. Preparation of phosphoinositolglycans and phosphoinositolglycan-peptides and their binding to the phosphoinositolglycan-binding protein is disclosed. The phosphoinositolglycan-binding protein regulates glucose uptake by circumventing the insulin signaling cascade. The phosphoinositolglycan-binding protein can be used for drug screening and for preparation of medicaments.

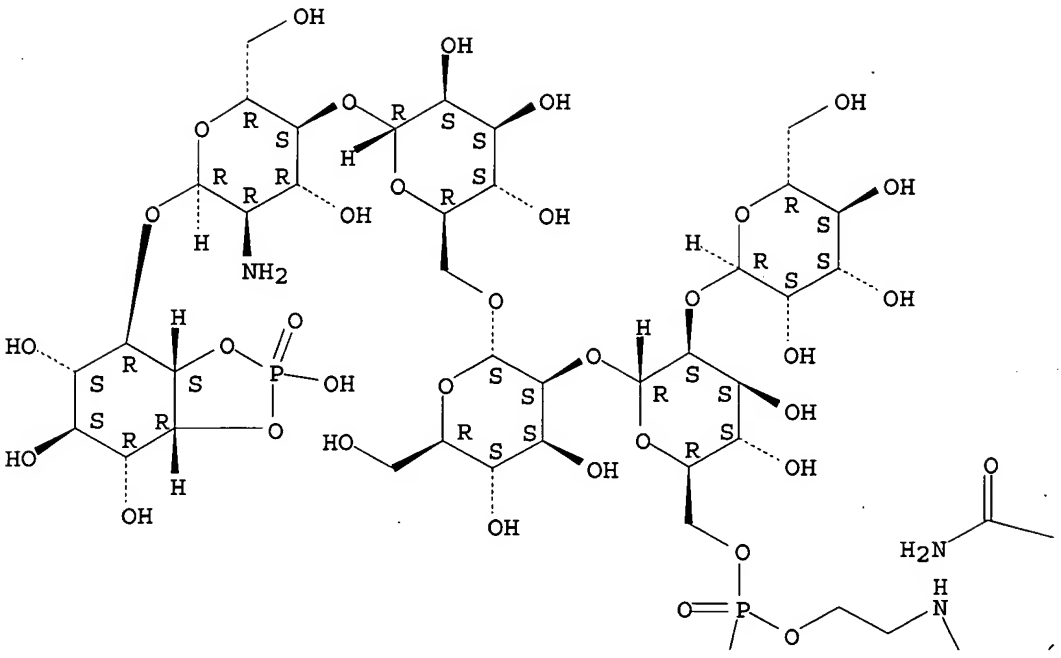
IT 640279-28-3P 640279-29-4P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PBP ligand; characterization and drug screening use of phosphoinositolglycan-binding protein (PBP) from plasma membrane of adipocytes)

RN 640279-28-3 CAPLUS

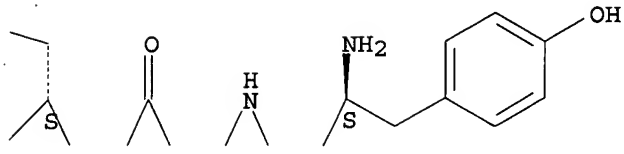
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[hydroxy[2-[(L-tyrosyl-L-methionyl-L-asparaginyl)amino]ethoxy]phosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

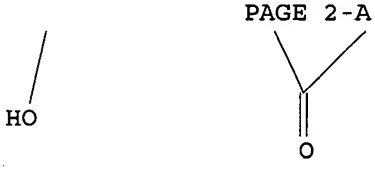
PAGE 1-A

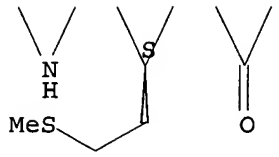


PAGE 1-B



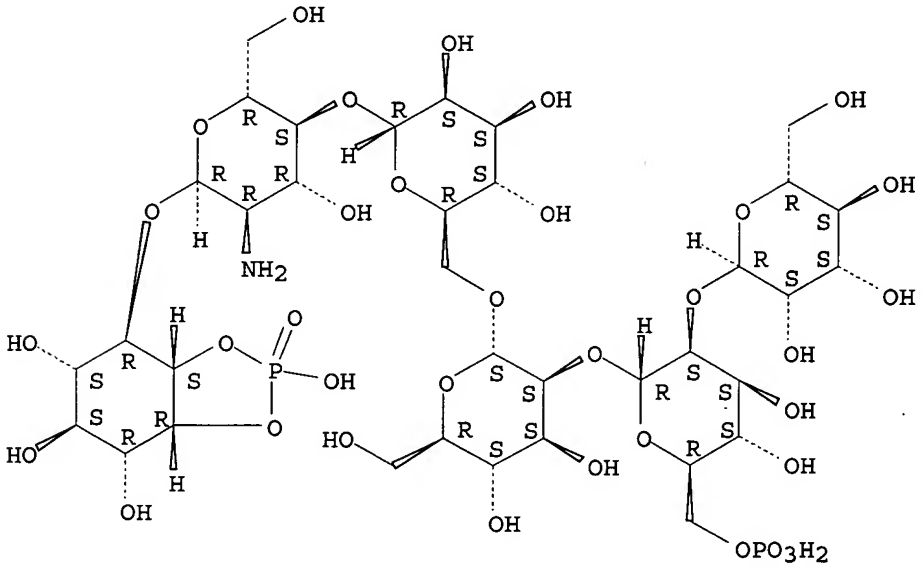
PAGE 2-A





RN 640279-29-4 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-phosphono-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:803349 CAPLUS
DOCUMENT NUMBER: 138:39485
TITLE: Rapid synthesis of a glycosylphosphatidylinositol-based malaria vaccine using automated solid-phase oligosaccharide synthesis
AUTHOR(S): Hewitt, Michael C.; Snyder, Daniel A.; Seeberger, Peter H.
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Journal of the American Chemical Society (2002), 124(45), 13434-13436
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:39485
AB Described is an automated synthesis of hexasaccharide malarial toxin, currently under development as a malaria vaccine candidate. Using a

combination of automated solid-phase methods and solution-phase fragment coupling, the target glycosylphosphatidylinositol was assembled in a matter of days, compared with several weeks for a comparable solution-phase synthesis.

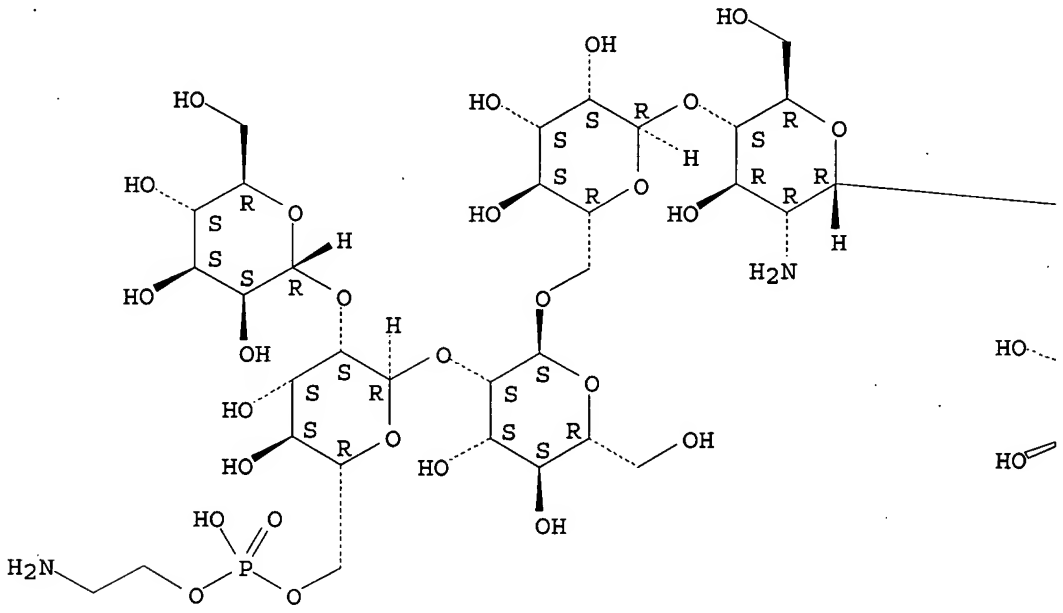
IT 460095-54-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(automated solid phase synthesis of glycosylphosphatidylinositol to develop into malaria vaccine candidate)

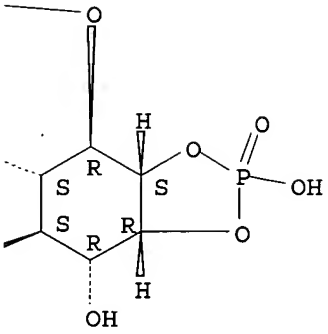
RN 460095-54-9 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:609398 CAPLUS
DOCUMENT NUMBER: 137:246241
TITLE: Synthetic GPI as a candidate anti-toxic vaccine in a model of malaria
AUTHOR(S): Schofield, Louis; Hewitt, Michael C.; Evans, Krystal; Siomos, Mary-Anne; Seeberger, Peter H.
CORPORATE SOURCE: Walter and Eliza Hall Institute of Medical Research, Royal Melbourne Hospital, Victoria, 3050, Australia
SOURCE: Nature (London, United Kingdom) (2002), 418(6899), 785-789
CODEN: NATUAS; ISSN: 0028-0836
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The malaria parasite Plasmodium falciparum infects 5-10% of the world's population and kills two million people annually. Fatalities are thought to result in part from pathol. reactions initiated by a malarial toxin. Glycosylphosphatidylinositol (GPI) originating from the parasite has the properties predicted of a toxin; however, a requirement for toxins in general and GPI in particular in malarial pathogenesis and fatality remains unproven. As anti-toxic vaccines can be highly effective public health tools, the authors sought to determine whether anti-GPI vaccination could prevent pathol. and fatalities in the P. berghei/rodent model of severe malaria. The P. falciparum GPI glycan of the sequence NH2-CH2-CH2-PO4-(Manα1-2)6Manα1-2Manα1-6Manα1-4GlcNH2α1-6myo-inositol-1,2-cyclic-phosphate was chemical synthesized, conjugated to carriers, and used to immunize mice. Recipients were substantially protected against malarial acidosis, pulmonary edema, cerebral syndrome, and fatality. Anti-GPI antibodies neutralized pro-inflammatory activity by P. falciparum in vitro. Thus, GPI is a pro-inflammatory endotoxin of parasitic origin, and several disease parameters in malarious mice are toxin-dependent. GPI may contribute to pathogenesis and fatalities in humans. Synthetic GPI is therefore a prototype carbohydrate anti-toxic vaccine against malaria.

IT 460095-54-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

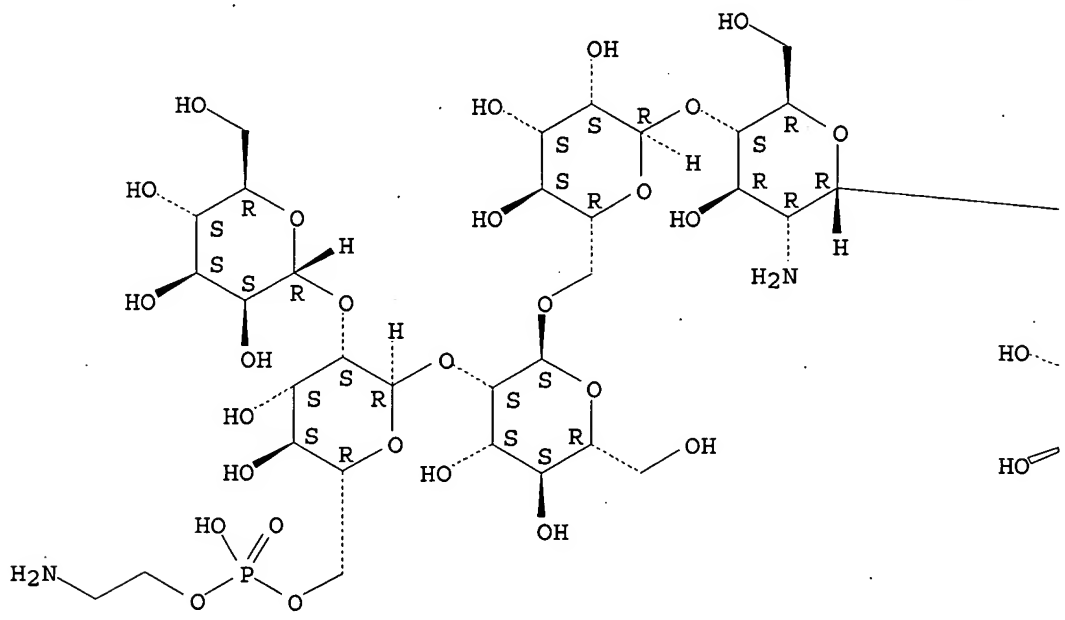
(synthetic glycosylphosphatidylinositol as candidate anti-toxic vaccine in rodent model of malaria)

RN 460095-54-9 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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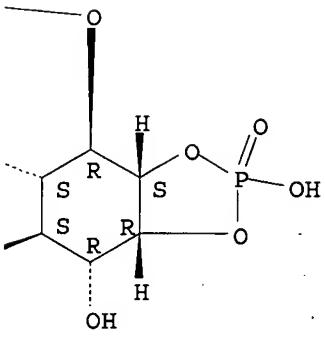


REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

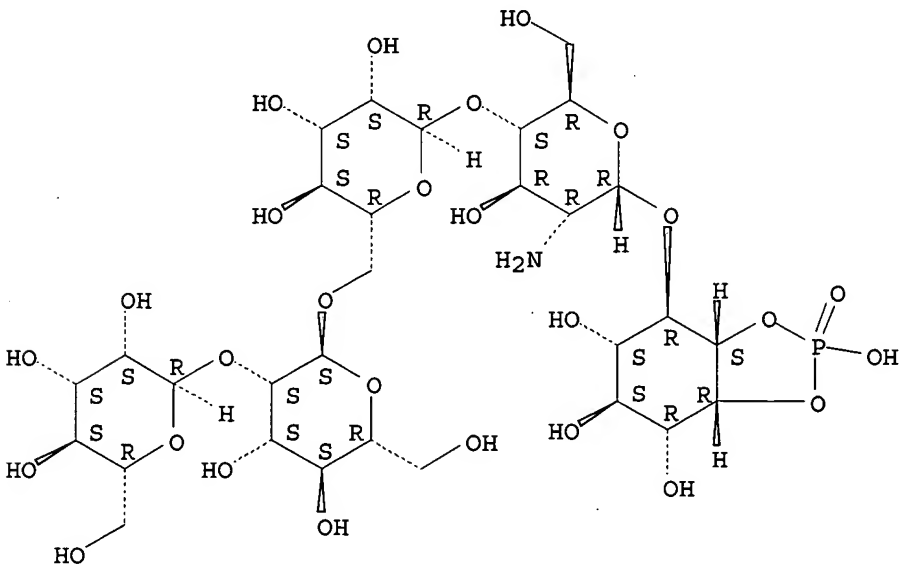
L7 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:292949 CAPLUS
DOCUMENT NUMBER: 135:61492
TITLE: Synthesis of inositol glycan cyclic phosphates
AUTHOR(S): Jaworek, C. H.; Iacobucci, S.; Calias, P.; d'Alarcao, M.
CORPORATE SOURCE: Michael Chemistry Laboratory, Department of Chemistry, Tufts University, Medford, MA, 02155, USA
SOURCE: Carbohydrate Research (2001), 331(4), 375-391
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:61492

AB An efficient synthesis of tri-, tetra-, and pentasaccharide cyclic phosphates, structurally related to natural inositol phosphate glycans, is reported. The title compds. were assembled by PhSeOTf-promoted glycosylation of the known glucosamine precursor, t-butyldimethylsilyl 2-azido-3,6-di-O-benzyl-2-deoxy-β-D-glucopyranoside with protected 1-methylthio mono-, di-, and trimannosides, and, after conversion into glycosyl fluorides, Cp2ZrCl2-AgOTf-promoted glycosylation of differentially protected optically pure 1D-myo-inositol. The syntheses were completed by installing the cyclic phosphate moieties with methylpyridinium dichlorophosphate and finally, removal of all protecting groups by dissolving-metal reduction

IT 310870-25-8P 344914-53-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of inositol glycan cyclic phosphates)

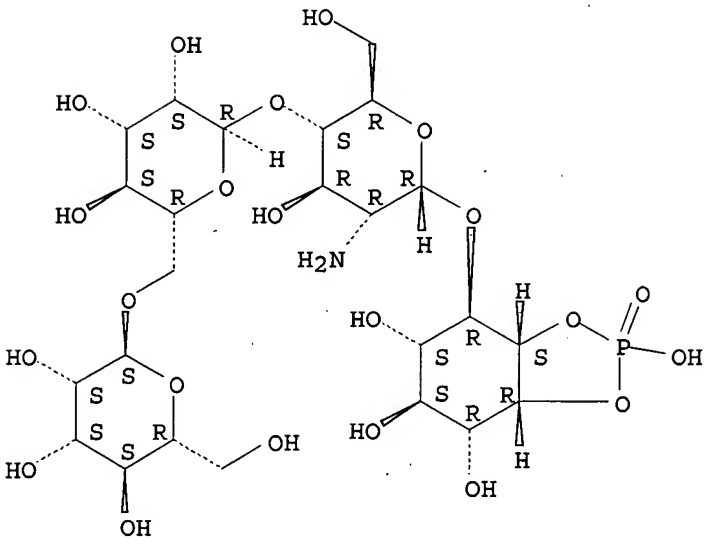
RN 310870-25-8 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 344914-53-0 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:743161 CAPLUS
DOCUMENT NUMBER: 134:29634
TITLE: Inositolphosphoglycan mediators structurally related to glycosyl phosphatidylinositol anchors: synthesis, structure and biological activity
AUTHOR(S): Martin-Lomas, Manuel; Khiar, Noureddine; Garcia, Salud; Koessler, Jean-Luc; Nieto, Pedro M.; Rademacher, Thomas W.
CORPORATE SOURCE: Grupo de Carbohidratos, Instituto de Investigaciones Quimicas CSIC-UNSE, Seville, 41092, Spain
SOURCE: Chemistry--A European Journal (2000), 6(19), 3608-3621
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:29634
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The preparation of the pseudopentasaccharide I, an inositolphosphoglycan (IPG) that contains the conserved linear structure of glycosyl phosphatidylinositol anchors (GPI anchors), was carried out by using a highly convergent 2+3-block synthesis approach which involves imidate and sulfoxide glycosylation reactions. The preferred solution conformation of this structure was determined by using NMR spectroscopy and mol. dynamics simulations prior to carrying out quant. structure-activity relationship studies in connection with the insulin signaling process. The ability of I to stimulate lipogenesis in rat adipocytes as well as to inhibit cAMP dependent protein kinase and to activate pyruvate dehydrogenase phosphatase was investigated. I did not show any significant activity, which may be taken as a strong indication that the GPI anchors are not the precursors of the IPG mediators.

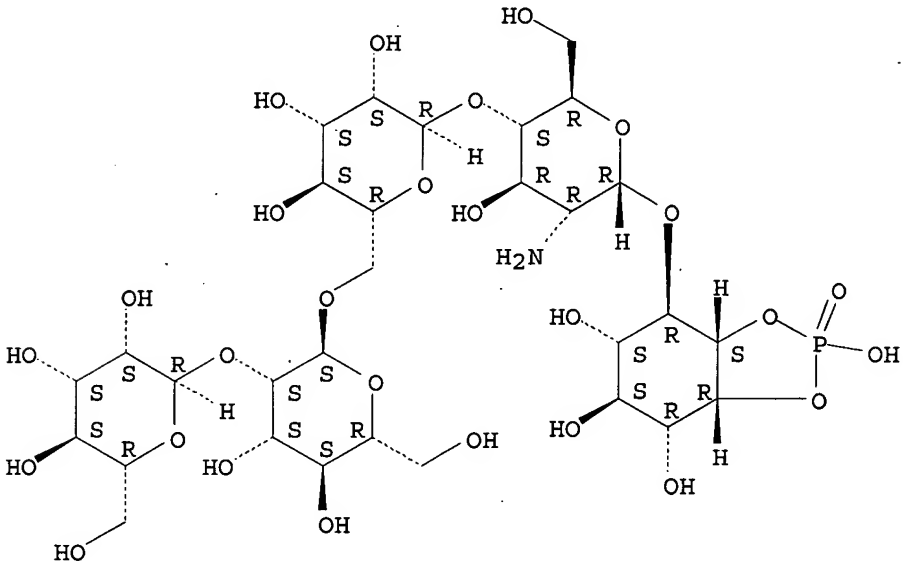
IT 310870-25-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis, structure, and biol. activity of inositolphosphoglycan mediators structurally related to GPI anchors)

RN 310870-25-8 CAPLUS

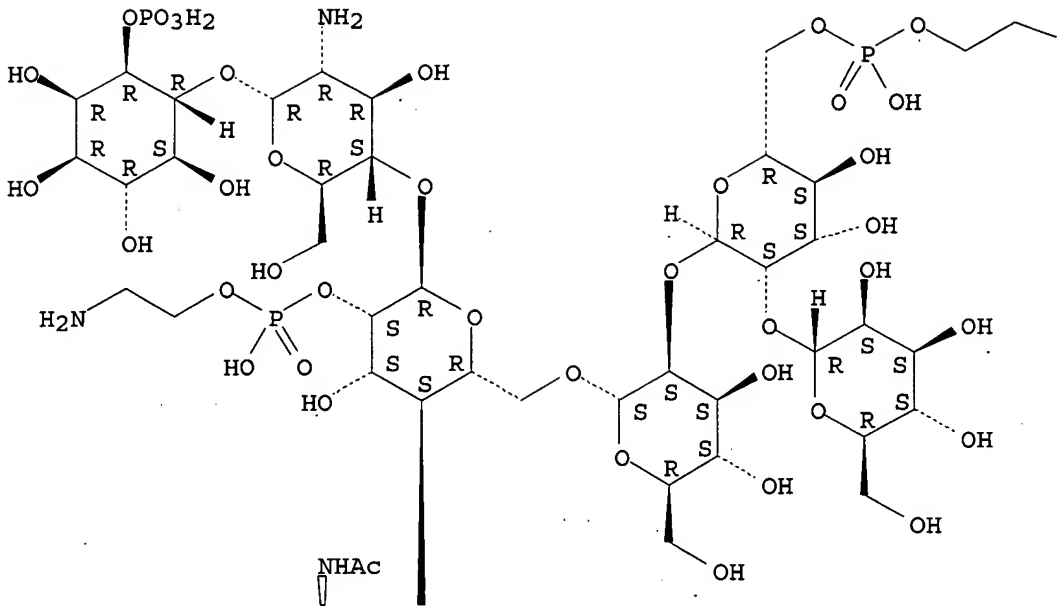
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, cyclic 1,2-(hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

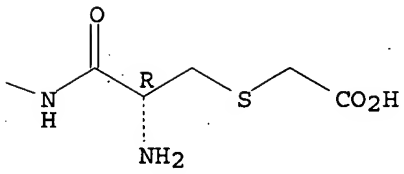


REFERENCE COUNT: 100 THERE ARE 100 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

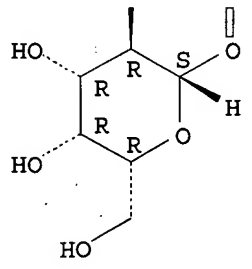
PAGE 1-A



PAGE 1-B



PAGE 2-A



L17 ANSWER 37 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:337418 CAPLUS
DOCUMENT NUMBER: 122:314995
TITLE: Studies Related to Synthesis of Glycophosphatidylinositol Membrane-Bound Protein Anchors. 6. Convergent Assembly of Subunits
AUTHOR(S): Madsen, Robert; Udodong, Uko E.; Roberts, Carmichael; Mootoo, David R.; Konradsson, Peter; Fraser-Reid, Bert
CORPORATE SOURCE: Paul M. Gross Chemical Laboratory, Duke University, Durham, NC, 27708, USA

SOURCE: Journal of the American Chemical Society (1995), 117(5), 1554-65
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

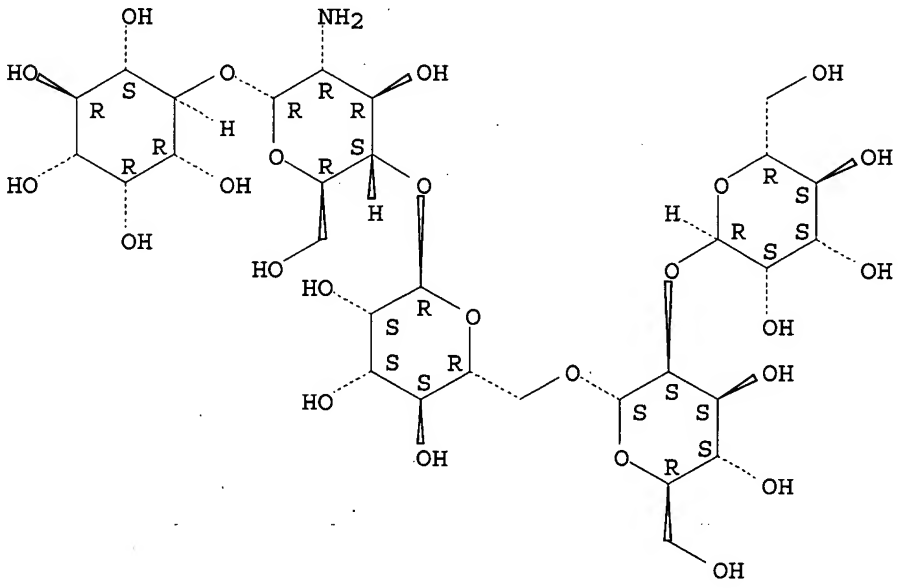
AB Glycophosphatidylinositol anchors of membrane-bound proteins are thought to comprise a common pentasaccharide core containing mannan, glucosamine, and inositol residues. A synthetic route to this core is described. In addition, the complete heptasaccharide I moiety of the rat brain Thy-1 membrane anchor, the first mammalian membrane anchor to be characterized, has been synthesized. In the case of the Thy-1 anchor, the synthetic plan is based on three building blocks comprising glucosamine-inositol, galactosamine-mannose, and trimannan residues. Although glycosyl donors other than n-pentenyl glycosides (NPGs) have been used in preparing each of these building blocks, the final assembly of the heptasaccharide utilizes NPGs as the only glycosyl donors. The mildness of the conditions for these coupling reactions has allowed us to make provisions for subsequent installation of the three phosphodiester units.

IT 123487-64-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(studies related to synthesis of glycophosphatidylinositol membrane-bound protein anchors and convergent assembly of subunits)

RN 123487-64-9 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 38 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:366467 CAPLUS

DOCUMENT NUMBER: 123:33528
TITLE: Synthesis of a GPI anchor of the yeast Saccharomyces cerevisiae
AUTHOR(S): Mayer, Thomas G.; Kratzer, Bernd; Schmidt, Richard R.
CORPORATE SOURCE: Fakultaet Chemie, Universitaet Konstanz, Konstanz, D-78434, Germany
SOURCE: Angewandte Chemie (1994), 106(21), 2289-93
CODEN: ANCEAD; ISSN: 0044-8249
PUBLISHER: VCH
DOCUMENT TYPE: Journal
LANGUAGE: German
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A multistep synthesis of the glycosylphosphatidylinositol anchor I was described.

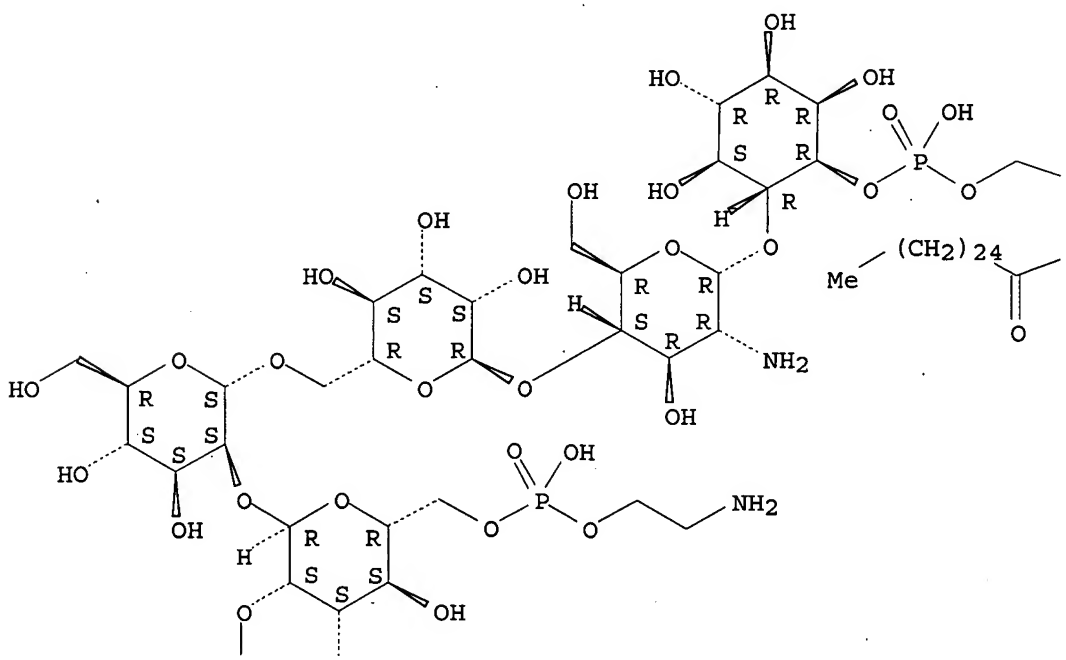
IT 164070-34-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of a glycosylphosphatidylinositol anchor of the yeast Saccharomyces cerevisiae)

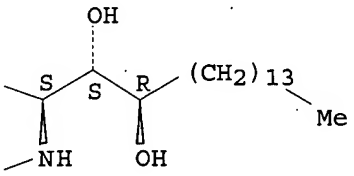
RN 164070-34-2 CAPLUS

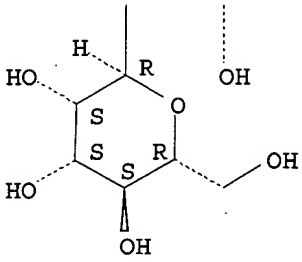
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[3,4-dihydroxy-2-[(1-oxohexacosyl)amino]octadecyl hydrogen phosphate], [2S-(2R*,3R*,4S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





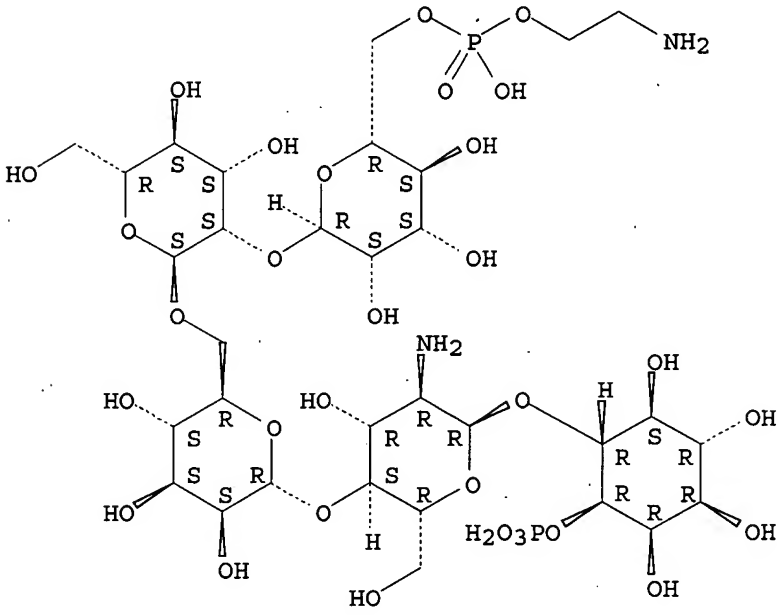


L17 ANSWER 39 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:643929 CAPLUS
DOCUMENT NUMBER: 119:243929
TITLE: Structures of glycosylphosphatidylinositol membrane anchors from Saccharomyces cerevisiae
AUTHOR(S): Fankhauser, Christoph; Homans, Steve W.; Thomas-Oates, Jane E.; McConville, Malcom J.; Desponds, Chantal; Conzelmann, Andreas; Ferguson, Michael A. J.
CORPORATE SOURCE: Inst. Biochem., Univ. Lausanne, Epalinges, CH-1066, Switz.
SOURCE: Journal of Biological Chemistry (1993), 268(35), 26365-74
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Metabolic labeling studies suggest that Saccharomyces cerevisiae contains many glycoproteins that are anchored in the lipid bilayer by glycosylphosphatidylinositol membrane anchors. Membrane anchors were purified from a crude yeast membrane protein fraction and analyzed by two-dimensional 1H-1H NMR, fast atom bombardment-mass spectrometry, compositional and methylation linkage analyses, as well as chemical and enzymic modifications. The yeast glycosylphosphatidylinositol anchors consist of the following structures: ethanolamine-PO4-6(R-2)Manα1-2Manα1-6Manα1-4GlcNH2α1-6myo-inositol-1-PO4-lipid, where R is mainly Manα1- (80%) with some Manα1-2Manα1- (15%) and Manα1-3Manα1- (5%). The core region of the yeast anchors (ethanolamine-PO4-6Manα1-2Manα1-6Manα1-4GlcNH2α1-6myo-inositol-1-PO4) is identical to the conserved core region found in glycosylphosphatidylinositol anchors from protozoa and mammals. The lipid moieties of the total yeast glycosylphosphatidylinositol anchors are mainly ceramides, consisting mostly of C18:0 phytosphingosine and C26:0 fatty acid. However, the lipid moiety of the glycosylphosphatidylinositol anchor of the purified ggp125 protein is a lyso- or diacylglycerol, containing C26:0 fatty acids. This suggests that yeast adds different lipid components to the glycosylphosphatidylinositol anchors of different proteins.

IT 150406-03-4
RL: ANT (Analyte); ANST (Analytical study)
(structure determination of, as core region of glycosylphosphatidylinositol membrane anchor of Saccharomyces cerevisiae)
RN 150406-03-4 CAPLUS
CN D-myo-Inositol, O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L17 ANSWER 40 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:22543 CAPLUS
DOCUMENT NUMBER: 118:22543
TITLE: Preparation of intermediates for glycosylphosphatidylinositol anchors
INVENTOR(S): Ogawa, Tomoya; Muragata, Tsutomu; Saito, Hiromitsu
PATENT ASSIGNEE(S): Institute of Physical and Chemical Research, Japan; Kyowa Hakko Kogyo Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04120089	A2	19920421	JP 1990-240960	19900911

PRIORITY APPLN. INFO.: JP 1990-240960 19900911
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

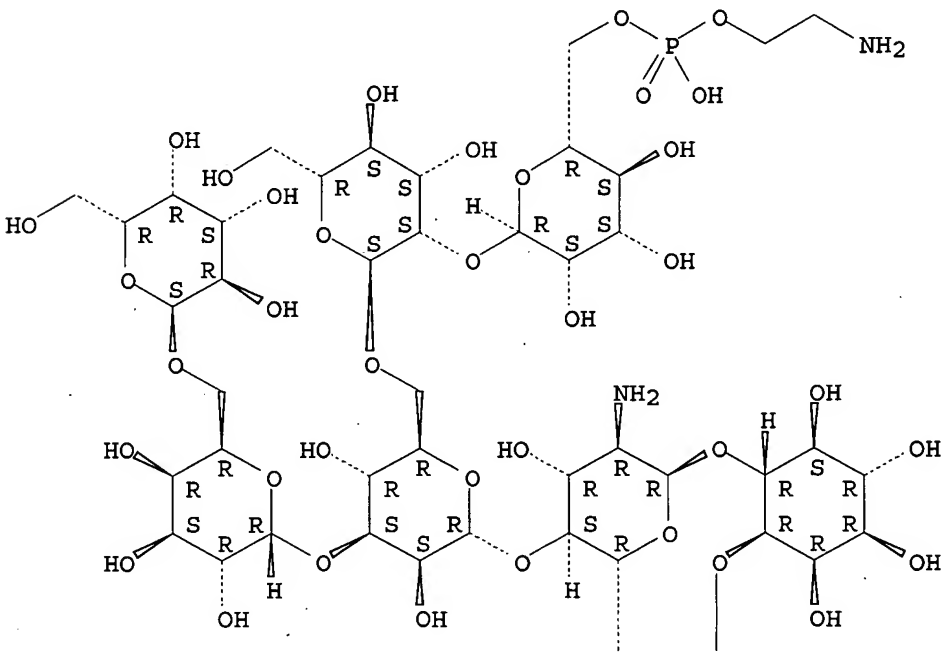
AB The title intermediates, e.g. I and II, are prepared E.g., I was prepared in 4 steps from the protected hexopyranose diacetate III via reaction with p-MeOC6H4OH in methylene chloride containing CF3SO3SiMe3, hydrolysis, reaction with benzyl alc., ClP[N(CHMe2)2]2, and HOCH2CH2NHCO2CH2Ph, and debenzylation.

IT 144733-58-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for glycosylphosphatidylinositol anchors)

RN 144733-58-4 CAPLUS

CN D-myo-Inositol, O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-[O-α-D-galactopyranosyl-(1→6)-α-D-galactopyranosyl-(1→3)]-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[(2R)-2,3-bis[(1-oxotetradecyl)oxy]propyl hydrogen phosphate], monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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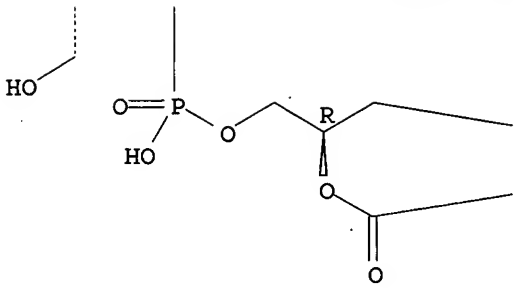
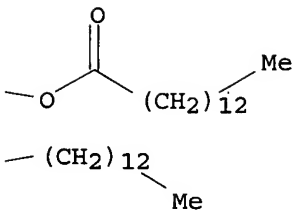


PAGE 2-B



L17 ANSWER 41 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1993:147925 CAPLUS
DOCUMENT NUMBER:	118:147925
TITLE:	Synthetic studies on cell-surface glycans. 85. Stereoselective total synthesis of the glycosyl phosphatidylinositol (GPI) anchor of Trypanosoma brucei
AUTHOR(S):	Murakata, Chikara; Ogawa, Tomoya
CORPORATE SOURCE:	Inst. Phys. Chem. Res., Wako, 351-01, Japan
SOURCE:	Carbohydrate Research (1992), 235, 95-114 CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE:	Journal
LANGUAGE:	English
OTHER SOURCE(S):	CASREACT 118:147925

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The total synthesis of O-{O-[6-O-(2-aminoethylphosphono)-α-D-mannopyranosyl]-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-[O-α-D-galactopyranosyl-(1→6)-α-D-galactopyranosyl-(1→3)]-O-α-D-mannopyranosyl-(1→4)-2-amino-2-deoxy-α-D-glucopyranosyl}-(1→6)-{1-O-(1,2-dimyristoyl-sn-glycero-3-phosphono)-1D-myo-inositol}, the GPI anchor of Trypanosoma brucei was achieved for the first time. The core structure of the GPI mol., the glycoheptaose I (R = CH2Ph, R1 = CH2C6H4OMe-4), was constructed in a highly stereocontrolled manner from O-[O-(2,4-di-O-benzyl-α-D-mannopyranosyl-(1→4)-2-azido-3,6-di-O-benzyl-2-deoxy-D-glucopyranosyl]-(1→6)-2,3,4,5-tetra-O-benzyl-1-O-(4-methoxybenzyl)-

D-myo-inositol, O-(2,3,4,6-tetra-O-benzyl-α-D-galactopyranosyl)-(1→6)-2,3,4-tri-O-benzyl-D-galactopyranosyl fluoride, 2-O-acetyl-3,4,6-tri-O-benzyl-α-D-mannopyranosyl chloride, and 6-O-acetyl-2,3,4-tri-O-benzyl-α-D-mannopyranosyl fluoride. The introduction of two phosphodiester functions was efficiently achieved using the H-phosphonate method.

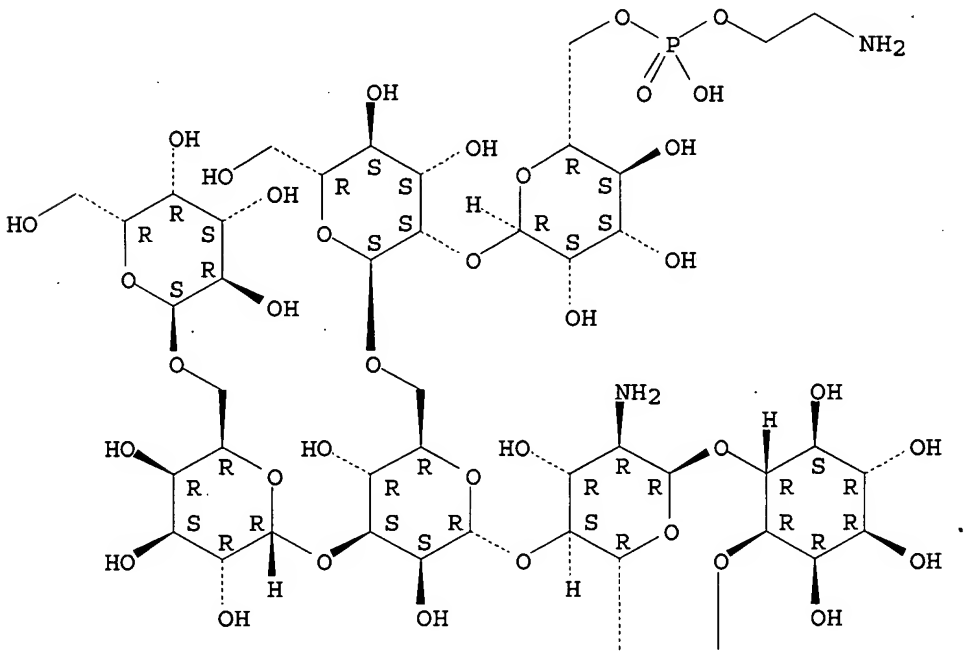
IT 146453-39-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(asym. synthesis of)

RN 146453-39-6 CAPLUS

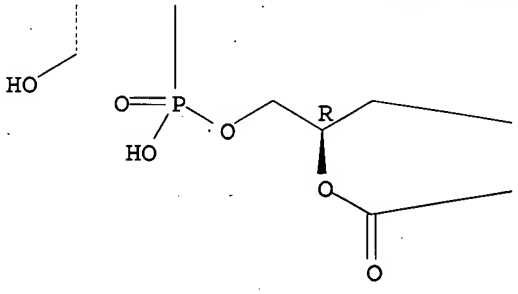
CN D-myo-Inositol, O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-[O-α-D-galactopyranosyl-(1→6)-α-D-galactopyranosyl-(1→3)]-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[(2R)-2,3-bis[(1-oxotetradecyl)oxy]propyl hydrogen phosphate], disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



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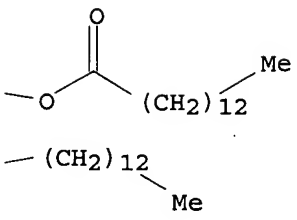


L17 ANSWER 42 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:573698 CAPLUS
DOCUMENT NUMBER: 117:173698
TITLE: Intermediates for the preparation of glycosyl phosphatidylinositol anchor and its analogues
INVENTOR(S): Ogawa, Tomoya; Muragata, Tsutomu; Saito, Hiromitsu
PATENT ASSIGNEE(S): Institute of Physical and Chemical Research, Japan; Kyowa Hakko Kogyo Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03237101	A2	19911023	JP 1990-298150	19901102
PRIORITY APPLN. INFO.:			JP 1989-327859 A1	19891218

OTHER SOURCE(S): MARPAT 117:173698
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The intermediates I (R = H, benzyl, methoxybenzyl or acetyl group) are provided for synthesis of title anchor, i.e. I with R = H except that C6 of its branch terminal glycosyl and inositol C adjacent to ether bond are phosphatidyl groups. Also, synthetic pathways of the precursors and intermediates via multiple steps are described with NMR data supporting their identification.

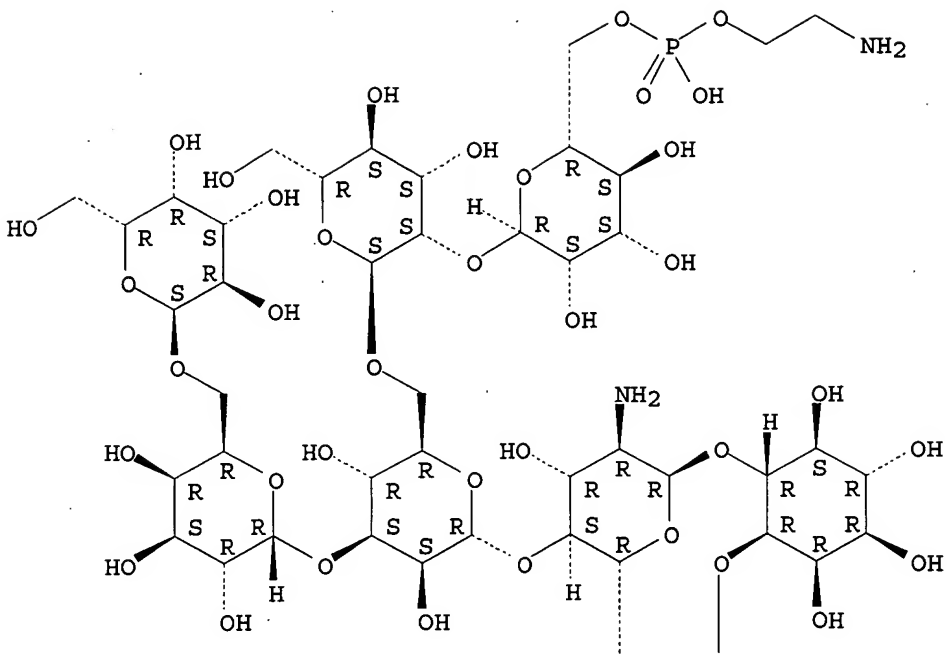
IT 139012-82-1P
RL: PREP (Preparation)
(intermediates for preparation of)

RN 139012-82-1 CAPLUS

CN D-myo-Inositol, O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-[O-α-D-galactopyranosyl-(1→6)-α-D-galactopyranosyl-(1→3)]-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[2,3-bis[(1-oxotetradecyl)oxy]propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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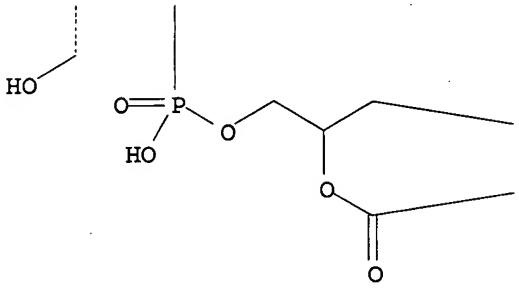

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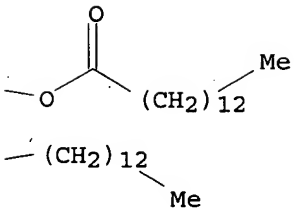
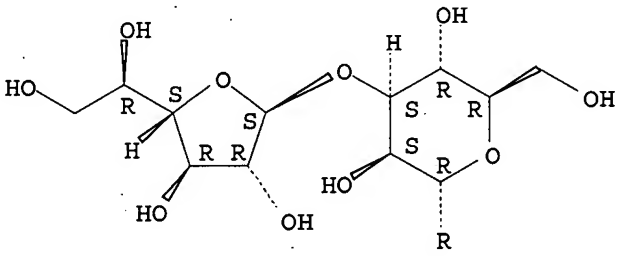


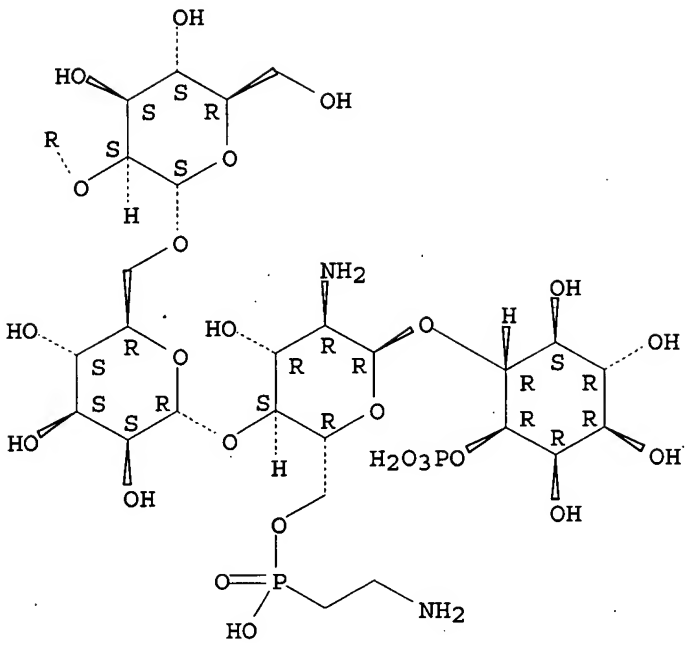
L17 ANSWER 43 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:3266 CAPLUS
DOCUMENT NUMBER: 116:3266
TITLE: Complete structure of the glycan of lipopeptidophosphoglycan from Trypanosoma cruzi epimastigotes
AUTHOR(S): De Lederkremer, Rosa M.; Lima, Carlos; Ramirez, Maria

I.; Ferguson, Michael A. J.; Homans, Steve W.; Thomas-Oates, Jane
CORPORATE SOURCE: Fac. Cienc. Exactas Nat., Univ. Buenos Aires, Argent.
SOURCE: Journal of Biological Chemistry (1991), 266(35), 23670-5
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The lipopeptidophosphoglycan is the major cell surface glycoconjugate of the epimastigote forms of the parasitic protozoan T. cruzi. A detailed partial structure for this mol. has been reported (Previato, J. O., et al., 1990). In this study, the primary structure assignments are completed and the microheterogeneity in the lipopeptidophosphoglycan glycan, found using a combination of 1H and 31P NMR, fast atom bombardment mass spectrometry, methylation linkage anal., and exoglycosidase sequencing, is described. The lipopeptidophosphoglycan is a glycosylated inositol-phosphoceramide with striking homol. to glycosylphosphatidylinositol membrane anchors found attached to a wide variety of plasma membrane proteins throughout the eukaryotes.
IT 137855-50-6
RL: BIOL (Biological study)
(of lipopeptidophosphoglycan, of Trypanosoma cruzi epimastigotes)
RN 137855-50-6 CAPLUS
CN D-myo-Inositol, O-β-D-galactofuranosyl-(1→3)-O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-6-O-[(2-aminoethyl)hydroxyphosphinyl]-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





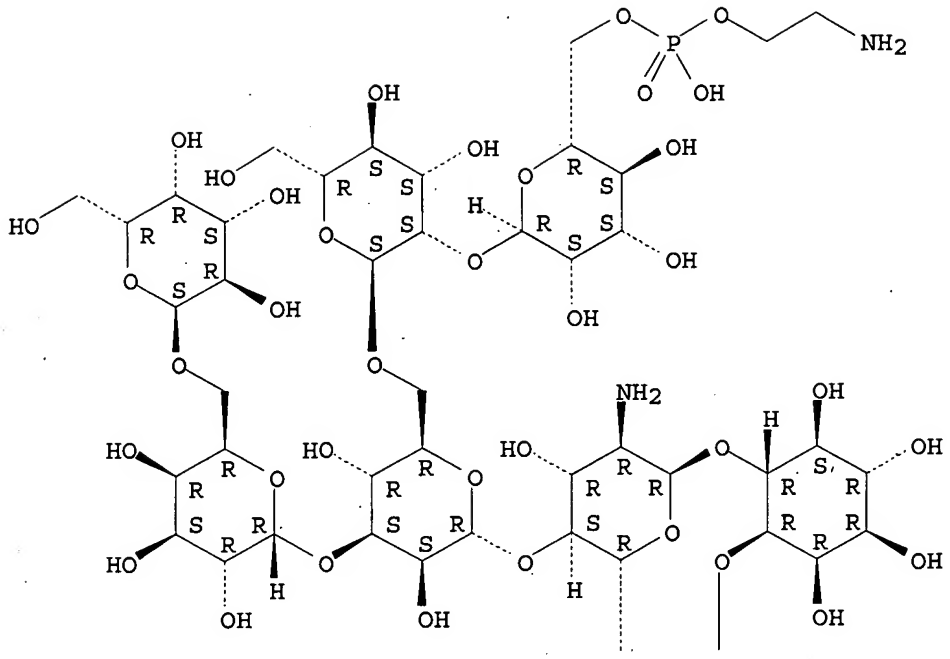
L17 ANSWER 44 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:185887 CAPLUS
DOCUMENT NUMBER: 114:185887
TITLE: Synthetic studies on cell-surface glycans. 78. A total synthesis of GPI anchor of Trypanosoma brucei
AUTHOR(S): Murakata, Chikara; Ogawa, Tomoya
CORPORATE SOURCE: RIKEN, Wako, 351-01, Japan
SOURCE: Tetrahedron Letters (1991), 32(5), 671-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A first total synthesis of glycophosphatidylinositol (GPI) anchor of Trypanosoma brucei is achieved by employing H-phosphonate strategy to introduce 2 phosphodiester functions into the glycoheptaosyl core intermediate.

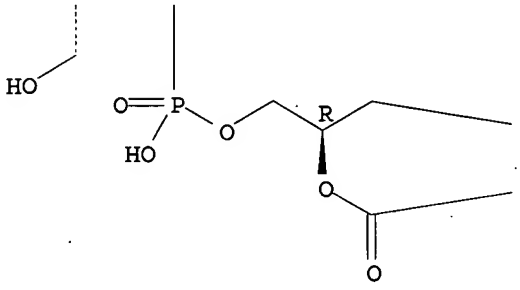
IT 133339-52-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(total synthesis of)
RN 133339-52-3 CAPLUS
CN D-myo-Inositol, O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-[O-α-D-galactopyranosyl-(1→6)-α-D-galactopyranosyl-(1→3)]-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[(2R)-2,3-bis[(1-oxotetradecyl)oxy]propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

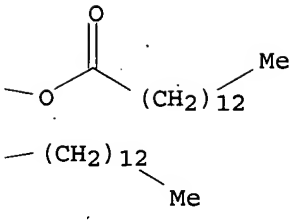
PAGE 1-A



PAGE 2-A



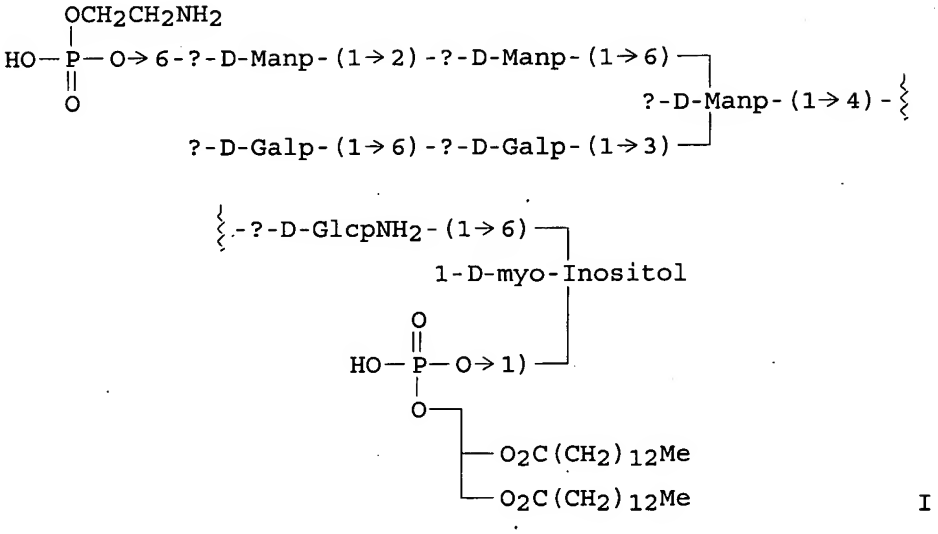
PAGE 2-B



L17 ANSWER 45 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:152220 CAPLUS
DOCUMENT NUMBER: 116:152220
TITLE: Synthetic studies on glycosyl-phosphatidylinositol anchor of Trypanosoma brucei
AUTHOR(S): Murakata, C.; Ogawa, T.
CORPORATE SOURCE: Inst. Phys. Chem. Res., Japan

SOURCE: Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (1991), 33rd, 47-53
CODEN: TYKYDS
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
GI



I

AB A report from a symposium on the preparation of glycosyl-phosphatadylinosol (GPI) anchor I by stepwise couplings.

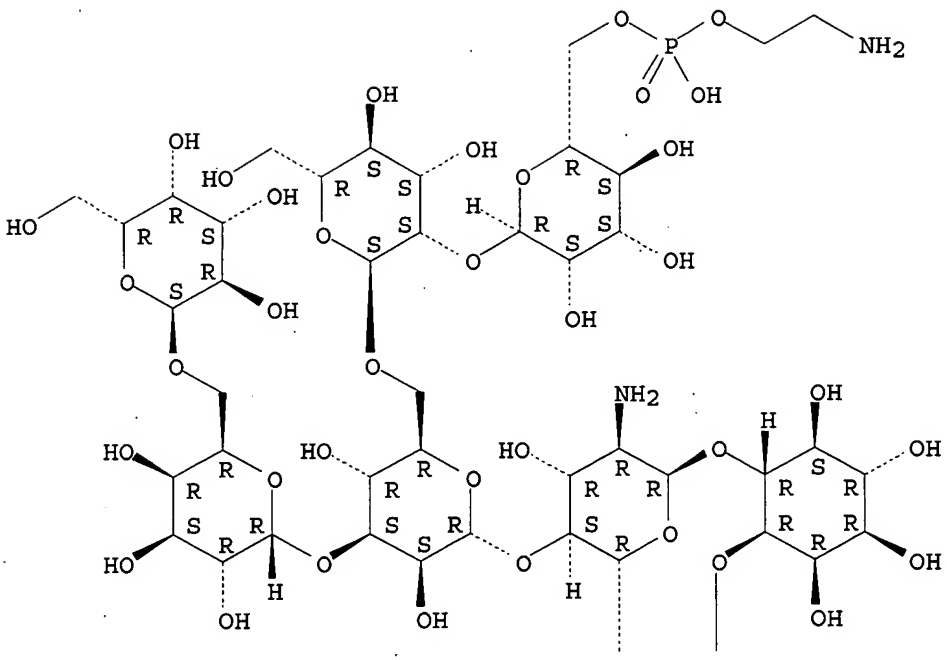
IT 133339-52-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 133339-52-3 CAPLUS

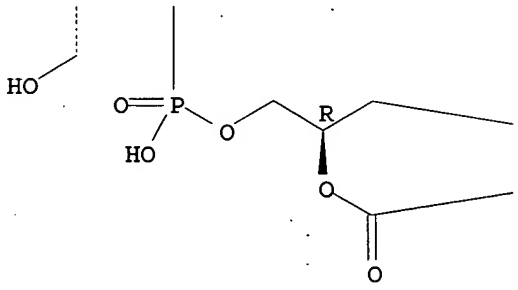
CN D-myo-Inositol, O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-[O-α-D-galactopyranosyl-(1→6)-α-D-galactopyranosyl-(1→3)]-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[(2R)-2,3-bis[(1-oxotetradecyl)oxy]propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

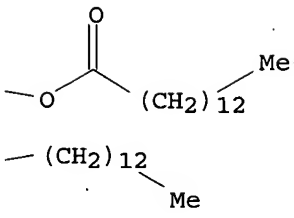
PAGE 1-A



PAGE 2-A



PAGE 2-B



L17 ANSWER 46 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:614834 CAPLUS

DOCUMENT NUMBER: 111:214834

TITLE: n-Pentenyl glycosides facilitate a stereoselective synthesis of the pentasaccharide core of the protein membrane anchor found in Trypanosoma brucei

AUTHOR(S): Mootoo, David R.; Konradsson, Peter; Fraser-Reid, Bert

CORPORATE SOURCE: Dep. Chem., Duke Univ., Durham, NC, 27706, USA
SOURCE: Journal of the American Chemical Society (1989), 111(22), 8540-2
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 111:214834

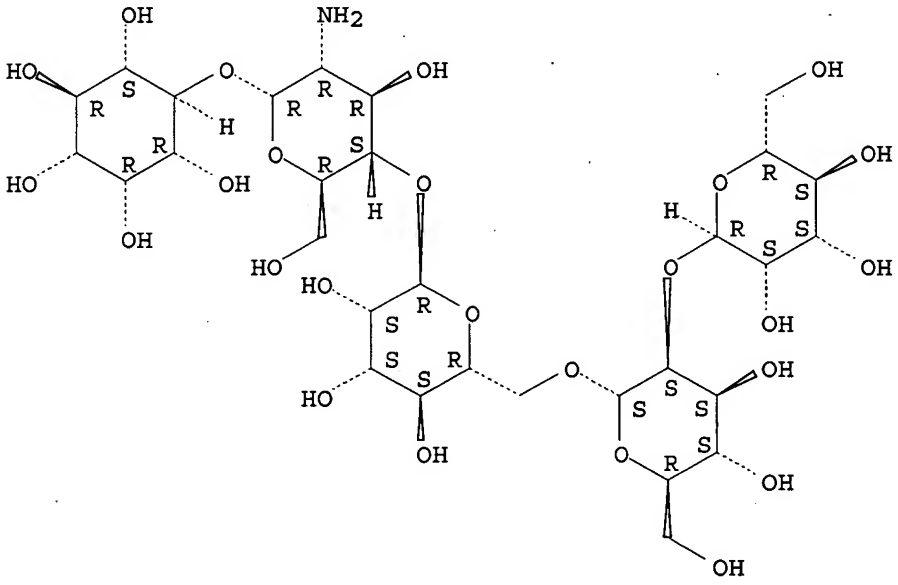
AB A synthesis of the mannan-rich pentasaccharide core of the protein membrane anchoring oligosaccharide of T. brucei was synthesized by a route that highlights the chemical of n-pentenyl glycosides. The β linkage between the glucosamine and inositol residues, as well as the α linkages between the mannose components, were all achieved with complete stereoselectivity. An important development is the conversion of tetra-O-benzoyl α-D-mannopyranosyl bromide into the pentenylated ortho ester, which (a) allows preferential protection at C-2, C-4, and C-6, (b) undergoes proton-induced rearrangement to give an n-pentenyl α-D-mannoside with the free C-2 hydroxyl, and (c) is highly reactive and leads to α manno linkages in coupling reactions. Full deprotection of the synthetic material gives the free pentasaccharide core.

IT 123487-64-9P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(stereoselective synthesis of)

RN 123487-64-9 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L17 ANSWER 47 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:469128 CAPLUS
DOCUMENT NUMBER: 109:69128
TITLE: Complete structure of the glycosyl phosphatidylinositol membrane anchor of rat brain Thy-1 glycoprotein
AUTHOR(S): Homans, Steve W.; Ferguson, Michael A. J.; Dwek, Raymond A.; Rademacher, Thomas W.; Anand, Rita; Williams, Alan F.

CORPORATE SOURCE: Dep. Biochem., Univ. Oxford, Oxford, OX1 3QU, UK
SOURCE: Nature (London, United Kingdom) (1988), 333(6170), 269-72
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The previously determined structure of the glycosylphosphatidylinositol (GPI) anchor of the Trypanosoma brucei variant surface glycoprotein (VSG) provides a prototype for comparison with other mols. Here the structure of the GPI anchor of rat brain Thy-1 glycoprotein is reported. It has an identical backbone to the VSG anchor but shows significant differences in side chain moieties.

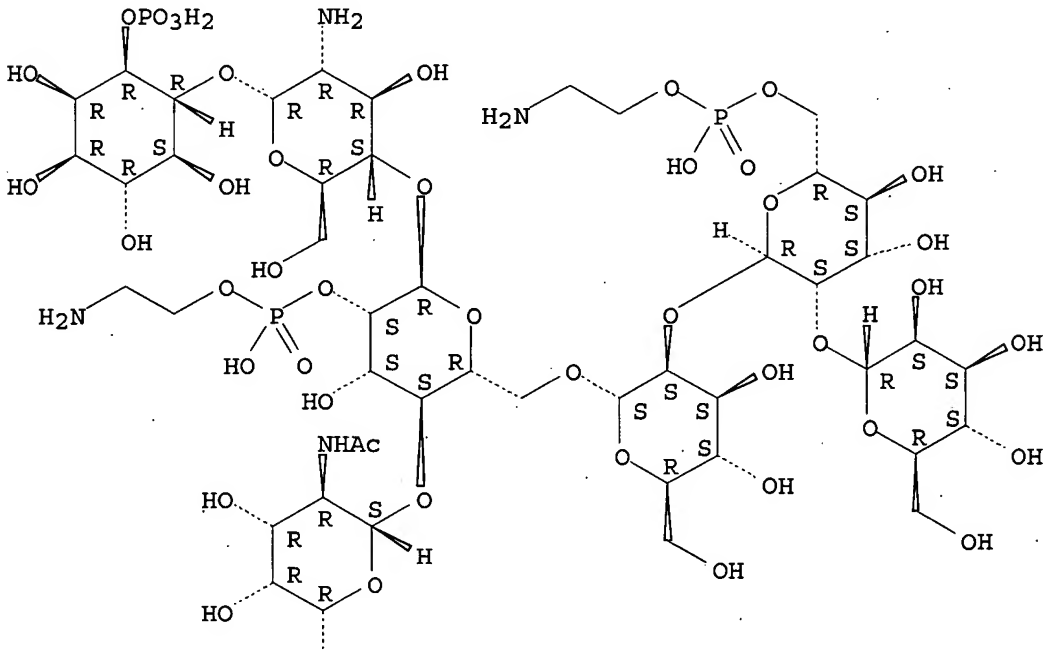
IT 115518-37-1
RL: BIOL (Biological study)
(as Thy-1 glycoprotein of mammal brain membrane anchor)

RN 115518-37-1 CAPLUS

CN D-myo-Inositol, O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→4)-O-[O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-α-D-mannopyranosyl-(1→6)]-O-2-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

L17 ANSWER 1 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:152834 CAPLUS
DOCUMENT NUMBER: 144:391283
TITLE: Synthesis of the Trypanosoma cruzi LPPG Heptasaccharyl myo-Inositol
AUTHOR(S): Hederos, Markus; Konradsson, Peter
CORPORATE SOURCE: IFM Chemistry, Linkoeping University, Linkoeping, SE-581 83, Swed.
SOURCE: Journal of the American Chemical Society (2006), 128(10), 3414-3419
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 144:391283

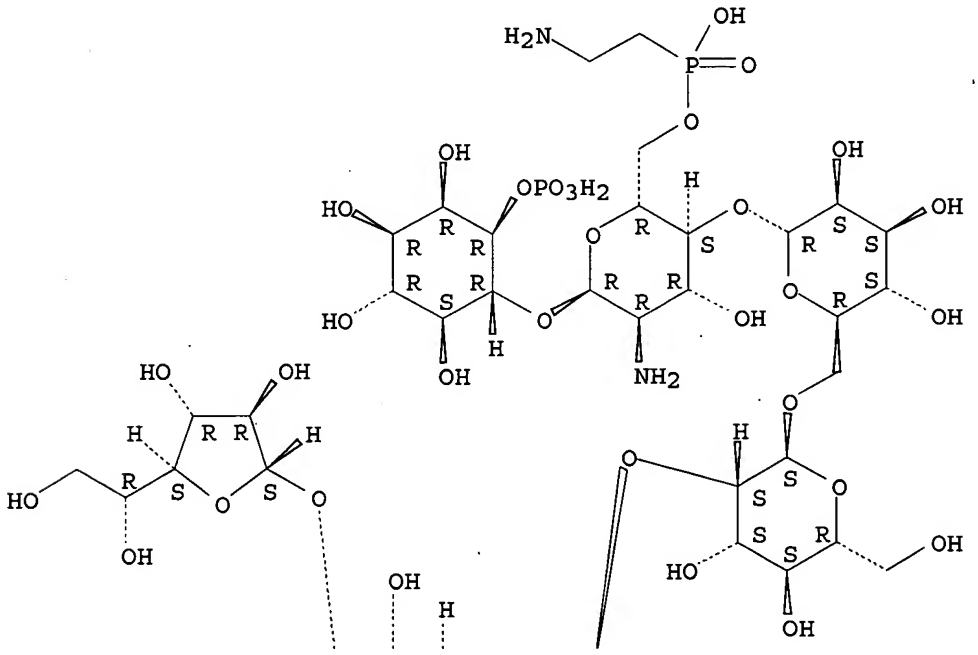
AB Synthesis of the heptasaccharyl myo-inositol found in Trypanosoma cruzi lipopeptidophosphoglycan was accomplished using a convergent assembly of three building blocks. The target compound is the first complete 2-aminoethyl phosphonic acid substituted glycan related to the glycosylphosphatidylinositol anchor family to be synthesized. The order of assembly enables synthesis of phosphoinositol oligosaccharides related to other glycosylinositolphospholipids in Tr. cruzi, the protozoan parasite causing Chagas' disease, which is endemic in South America.

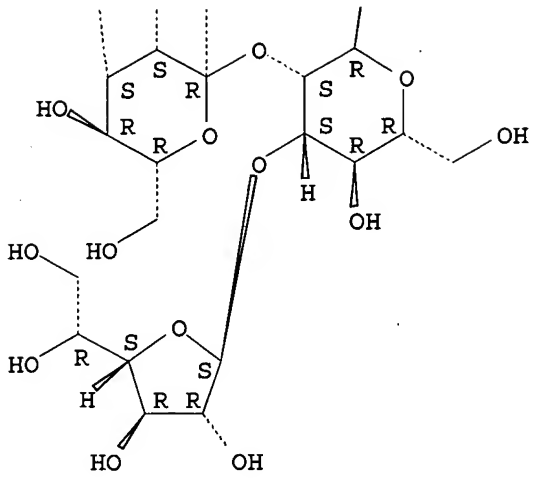
IT 882512-93-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of a 2-aminoethyl phosphonic acid substituted lipopeptidophosphoglycan found in Trypanosoma cruzi)

RN 882512-93-8 CAPLUS
CN D-myo-Inositol, O-β-D-galactofuranosyl-(1→3)-O-α-D-mannopyranosyl-(1→2)-O-[β-D-galactofuranosyl-(1→3)]-O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-6-O-[(2-aminoethyl)hydroxyphosphinyl]-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-(dihydrogen phosphate), monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A





O NH_3

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:162603 CAPLUS
DOCUMENT NUMBER: 144:391278
TITLE: Phospholipase cleavage of D- and L-chiro-glycosyl-phosphoinositides asymmetrically incorporated into liposomal membranes
AUTHOR(S): Bonilla, Julia B.; Cid, M. Belen; Contreras, F.-Xabier; Goni, Felix M.; Martin-Lomas, Manuel
CORPORATE SOURCE: Grupo de Carbohidratos, Instituto de Investigaciones Quimicas CSIC, Seville, 41092, Spain
SOURCE: Chemistry--A European Journal (2006), 12(5), 1513-1528
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 144:391278

AB The nature of chiro-inositol-containing inositolphosphoglycans (IPGs), reported to be putative insulin mediators, was studied by examination of the substrate specificities of the phosphatidylinositol-specific phospholipase C (PI-PLC) and the glycosylphosphatidylinositol-specific phospholipase D (GPI-PLD) by using a series of synthetic D- and L-chiro-glycosyl-phosphoinositides. 3-O-α-D-Glucosaminyl- and -galactosaminyl-2-phosphatidyl-L-chiro-inositol, which show the maximum stereochem. similarity to the 6-O-α-D-glucosaminylphosphatidyl-inositol pseudo-disaccharide motifs of GPI anchors, were synthesized and asym. incorporated into phospholipid bilayers in the form of large unilamellar vesicles (LUVs). Similarly, 2-O-α-D-glucosaminyl- and -galactosaminyl-1-phosphatidyl-D-chiro-inositol, which differ from the corresponding pseudo-disaccharide motif of the GPI anchors only in the axial orientation of the phosphatidyl moiety, were also synthesized and asym. inserted into LUVs. The cleavage of these synthetic mols. in the liposomal constructs by PI-PLC from Bacillus cereus and by GPI-PLD from bovine serum was studied with the use of 6-O-α-D-glucosaminylphosphatidyl-inositol and the conserved GPI anchor structure as pos. controls. Although PI-PLC cleaved

3-O-α-D-Glucosaminyl- and -galactosaminyl-2-phosphatidyl-L-chiro-inositol with about the same efficiency as 6-O-α-D-glucosaminylphosphatidyl-inositol, this enzyme did not accept 2-O-α-D-glucosaminyl- and -galactosaminyl-1-phosphatidyl-D-chiro-inositol. GPI-PLD accepted both the L-chiro- and the D-chiro-2-O-α-D-glucosaminyl- and -galactosaminyl-1-phosphatidyl-D-chiro-inositol glycosylinositolphosphoinositides. Therefore, IPGs containing L-chiro-inositol only are expected to be released from chiro-inositol-containing GPIs if the cleavage is effected by a PI-PLC, whereas GPI-PLD cleavage could result in both L-chiro- and D-chiro-inositol-containing IPGs.

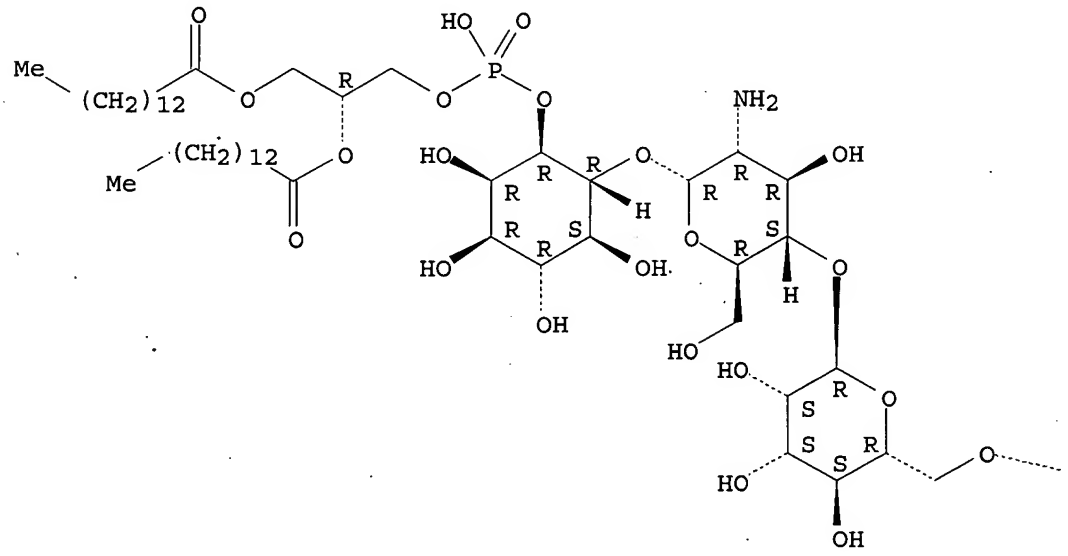
IT 882737-46-4
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(preparation and phospholipase cleavage of D- and L-chiro-glycosyl-phosphoinositides asym. incorporated into liposomal membranes)

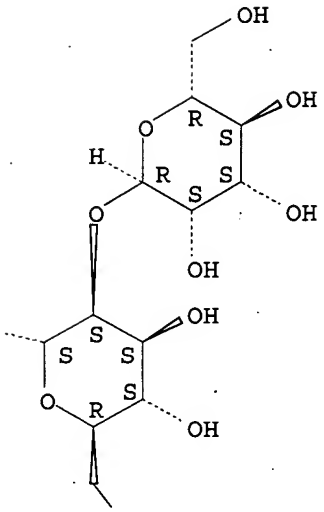
RN 882737-46-4 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[(2R)-2,3-bis[(1-oxotetradecyl)oxy]propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:85555 CAPLUS
DOCUMENT NUMBER: 144:292959
TITLE: The chemical synthesis of bioactive glycosylphosphatidylinositols from Trypanosoma cruzi containing an unsaturated fatty acid in the lipid
AUTHOR(S): Yashunsky, Dmitry V.; Borodkin, Vladimir S.; Ferguson, Michael A. J.; Nikolaev, Andrei V.
CORPORATE SOURCE: Faculty of Life Sciences Division of Biological Chemistry and Molecular Microbiology, University of Dundee, Dundee, DD1 4HN, UK
SOURCE: Angewandte Chemie, International Edition (2006), 45(3), 468-474
CODEN: ACIEF5; ISSN: 1433-7851
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 144:292959

AB Glycosylphosphatidylinositols from the Trypanosoma cruzi parasite (a causative agent of Chagas' disease) that contain an unsatd. fatty acid in the lipid moiety were prepared by a strategy that employs non-benzyl-type protecting groups. The synthetic GPIs show similar biol. activity to their natural counterparts.

IT 879126-12-2P 879126-13-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of glycosylphosphatidylinositols from Trypanosoma cruzi with an unsatd. fatty acid in the lipid which employs non-benzyl-type

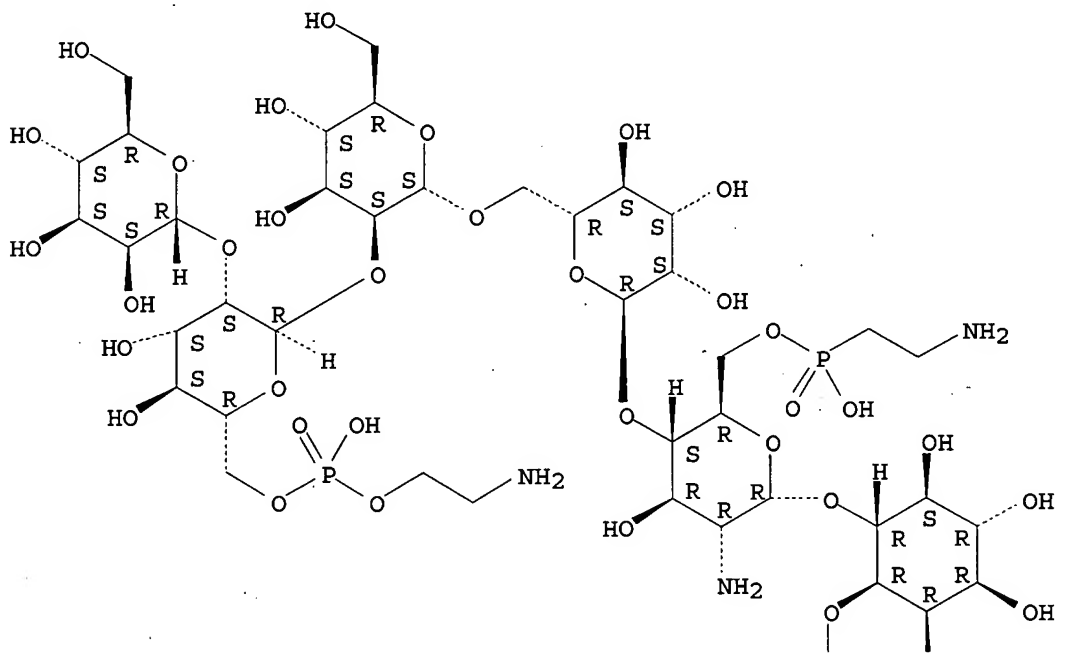
protecting groups)

RN 879126-12-2 CAPLUS

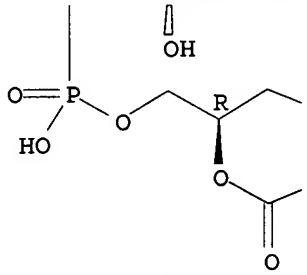
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-6-O-[(2-aminoethyl)hydroxyphosphinyl]-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[(2R)-3-(hexadecyloxy)-2-[[(9Z)-1-oxo-9-octadecenyl]oxy]propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

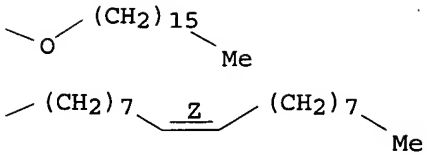
Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



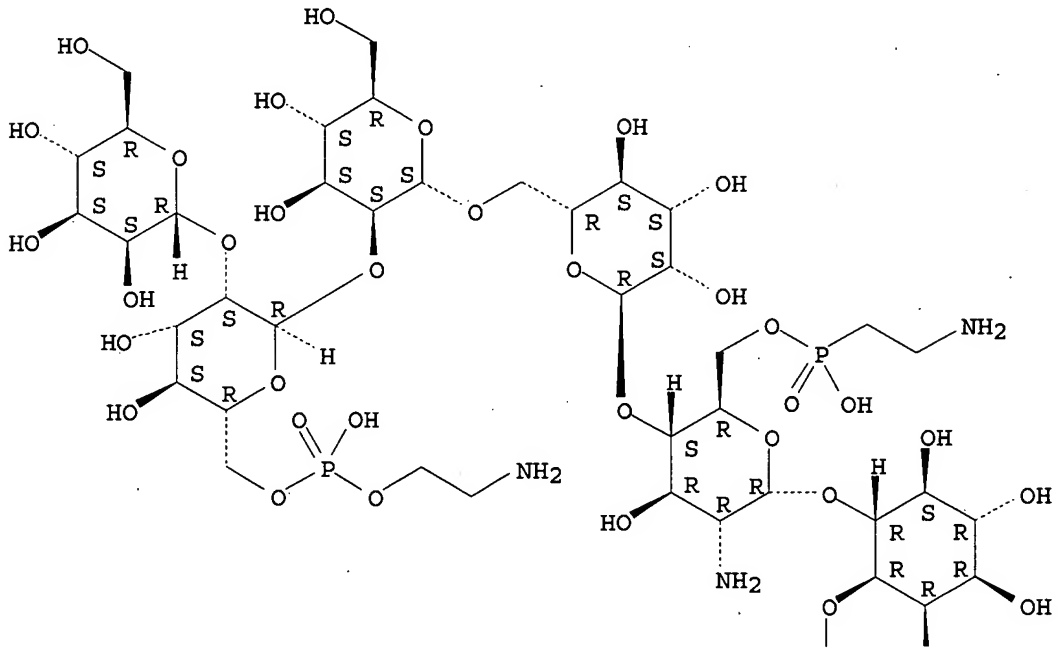
PAGE 2-A

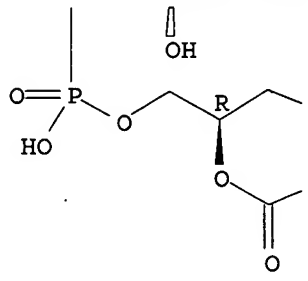


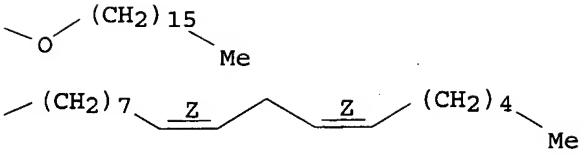


RN 879126-13-3 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-2-amino-6-O-[(2-aminoethyl)hydroxyphosphinyl]-2-deoxy-, 1-[(2R)-3-(hexadecyloxy)-2-[[(9Z,12Z)-1-oxo-9,12-octadecadienyl]oxy]propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.







REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

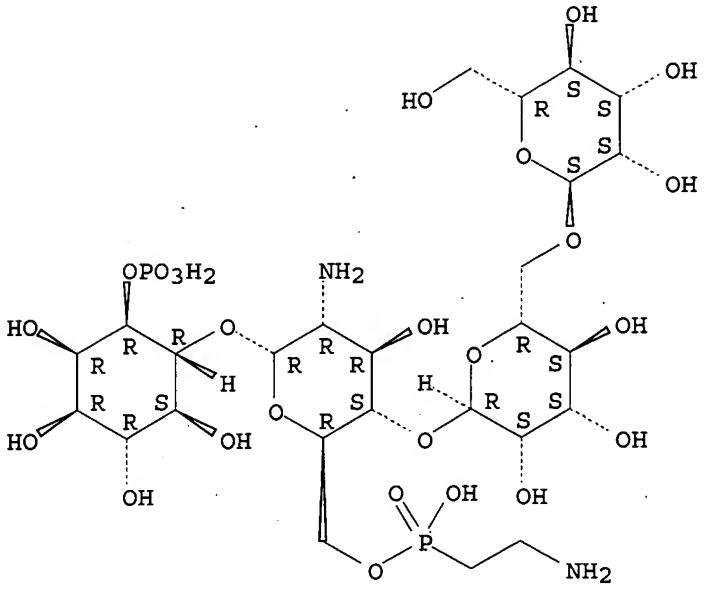
L17 ANSWER 4 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:730073 CAPLUS
DOCUMENT NUMBER: 143:367472
TITLE: Synthesis of the Core Tetrasaccharide of Trypanosoma cruzi Glycoinositolphospholipids: Manp(α1→6)-Manp(α1→4)-6-(2-aminoethylphosphonic acid)-GlcNp(α1→6)-myo-Ins-1-PO4
AUTHOR(S): Hederos, Markus; Konradsson, Peter
CORPORATE SOURCE: Division of Chemistry, IFM, Linkoeping University, Linkoeping, SE-581 83, Swed.
SOURCE: Journal of Organic Chemistry (2005), 70(18), 7196-7207 CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:367472

AB Synthesis of the core tetrasaccharide Manp(α1→6)-Manp(α1→4)-6-(2-aminoethylphosphonic acid)-GlcNp(α1→6)-myo-Ins-1-PO4, found in glycoinositolphospholipids of Trypanosoma cruzi parasites, is described. The key building block, 6-O-(2-azido-3-O-benzyl-6-O-((2-benzyloxycarbonylaminoethyl)phosphonic acid benzyl ester)-2-deoxy-α-D-glucopyranosyl)-1-di-O-benzylphosphoryl-4,5-O-isopropylidene-2,3-O-(D-1,7,7-trimethyl[2,2,1]bicyclohept-6-ylidene)-D-myo-inositol, was synthesized using a partially protected glucosyl D-camphorinositolphosphate and a (2-benzyloxycarbonylaminoethyl)phosphonic acid derivative in a regioselective phosphonate esterification. Elongation with Et 2-O-benzoyl-3,4,6-tri-O-benzyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzyl-1-α-D-thiomannopyranoside using dimethyl(methylthio)sulfonium trifluoromethanesulfonate gave a fully protected tetrasaccharide which was successfully deprotected subsequently with sodium methoxide, sodium in liquid ammonia, and aq hydrochloric acid to give title compound

IT 866322-00-1P
RL: NPO (Natural product occurrence); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(synthesis of the core tetrasaccharide of Trypanosoma cruzi glycoinositolphospholipids via regioselective phosphonate esterification)

RN 866322-00-1 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-6-O-[(2-aminoethyl)hydroxyphosphinyl]-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:241617 CAPLUS
DOCUMENT NUMBER: 142:463952
TITLE: Convergent Synthesis of a Fully Lipidated Glycosylphosphatidylinositol Anchor of Plasmodium falciparum
AUTHOR(S): Liu, Xinyu; Kwon, Yong-Uk; Seeberger, Peter H.
CORPORATE SOURCE: Laboratory for Organic Chemistry, ETH Zuerich, Zurich, 8093, Switz.
SOURCE: Journal of the American Chemical Society (2005), 127(14), 5004-5005
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:463952

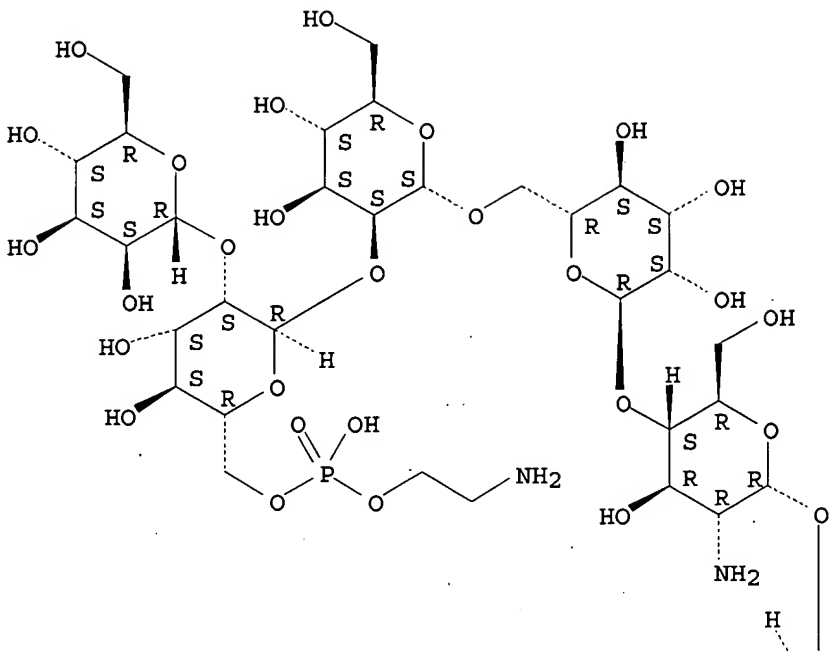
AB A highly convergent strategy for the synthesis of fully lipidated GPI anchors of malarial origin is reported. This strategy utilized three orthogonal protecting groups, which can be chemoselectively deprotected and functionalized in the late stage of the synthesis. Rapid access to the target GPIs in a highly efficient manner in sufficient quantities for the biol. studies has been achieved.

IT 851620-31-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of the glycosylphosphatidylinositol anchor of Plasmodium falciparum utilizing orthogonal protecting groups)

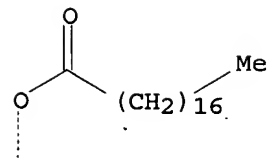
RN 851620-31-0 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-[(2R)-2,3-bis[(1-oxooctadecyl)oxy]propyl hydrogen phosphate] 2-hexadecanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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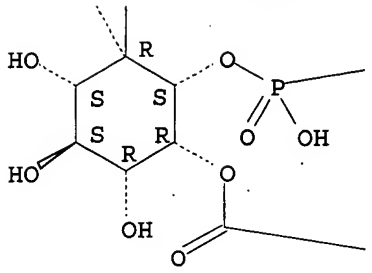

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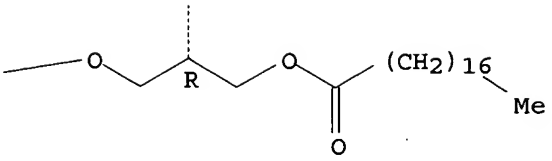
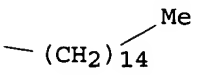




REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

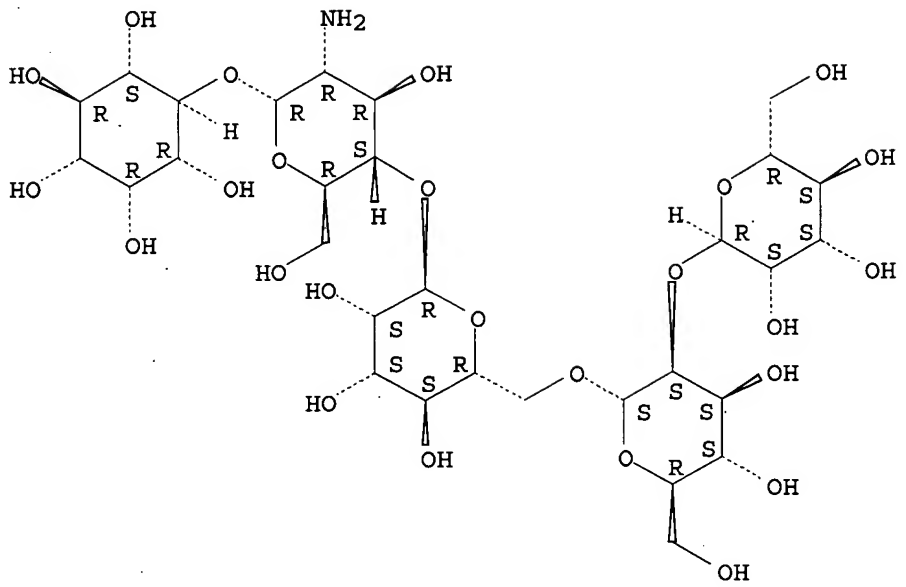
L17 ANSWER 6 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:965874 CAPLUS
DOCUMENT NUMBER: 143:387292
TITLE: Conformational study of GPI anchors: The common oligosaccharide GPI anchor backbone
AUTHOR(S): Chevalier, Franck; Lopez-Prados, Javier; Perez, Serge; Martin-Lomas, Manuel; Nieto, Pedro M.
CORPORATE SOURCE: Grupo de Carbohidratos, Instituto de Investigaciones Quimicas, CSIC, Isla de la Cartuja, Seville, 41092, Spain
SOURCE: European Journal of Organic Chemistry (2005), (16), 3489-3498
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The solution three-dimensional structure of a pseudopentasaccharide (I) which constitutes the product from the GPI-PLD cleavage of a GPI anchor, has been studied using a protocol which involves a systematic search of the conformational space around the glycosidic linkages, a thorough mol. dynamics study with explicit water mols. and a full NMR anal. study of intramol. hydrogen bonding in solution The results indicate that I exists in an extended conformation with a considerable flexibility compatible with a hinge-like conformational motion.

IT 866893-09-6
RL: PRP (Properties)
(mol. dynamics simulation and adiabatic potential energy surface anal. of the conformation of glycosylphosphatidylinositols)
RN 866893-09-6 CAPLUS
CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, conjugate monoacid (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

$\bigcirc H^+$

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 7 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:364405 CAPLUS
DOCUMENT NUMBER: 143:44022
TITLE: Assembly of a series of malarial glycosylphosphatidylinositol anchor oligosaccharides
AUTHOR(S): Kwon, Yong-Uk; Soucy, Regina L.; Snyder, Daniel A.; Seeberger, Peter H.
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Chemistry--A European Journal (2005), 11(8), 2493-2504
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:44022

AB We report an efficient and convergent synthesis of a series of oligosaccharides comprised of the malaria GPI glycan, a promising anti-malaria vaccine candidate currently in preclin. trials and several related oligosaccharide sequences that are possible biosynthetic precursors of the malarial GPI. A flexible synthetic strategy is disclosed that relies on a late-stage coupling between oligomannosides of varying length and pseudo-disaccharide glycosyl acceptor to readily access various malarial GPI structures. Phosphorylation was accomplished by mild and efficient H-phosphonate chemical before the final deprotection was carried out by using sodium in ammonia. The direct connection of a thiol group via a phosphate diester linkage to the inositol moiety provides a

handle for easy conjugation of the GPI glycan to carrier proteins, immobilization on carbohydrate microarrays and photo-affinity labels identification. These synthetic oligosaccharides will serve as mol. probes.

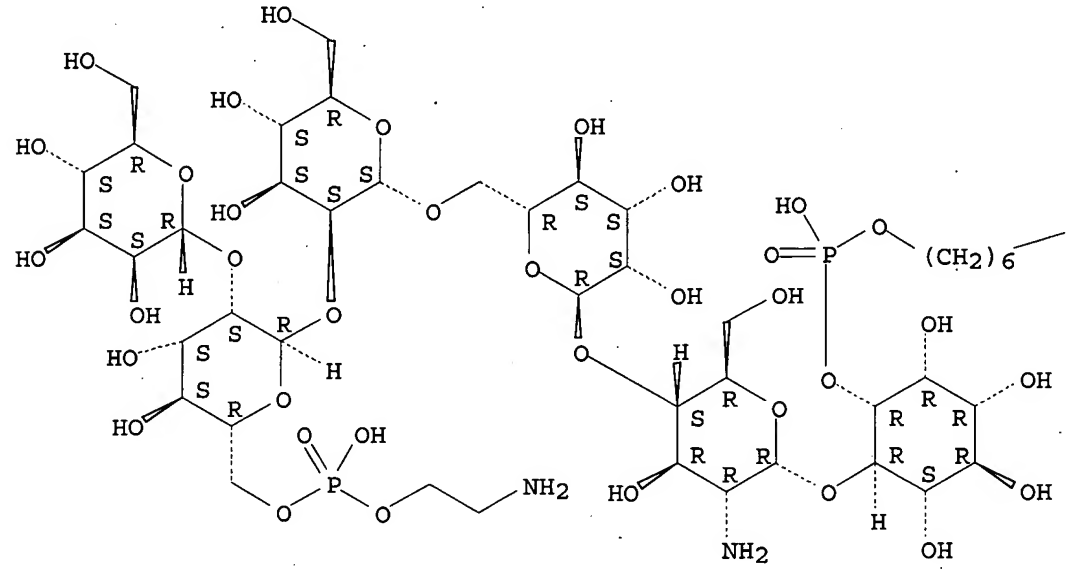
IT 761433-25-4P 853729-75-6P 853729-76-7P
853729-77-8P 853729-78-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of malarial glycosylphosphatidylinositol anchor oligosaccharides for use toward structure activity relationships between GPI toxins and anti-malarial antibodies)

RN 761433-25-4 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→2)-O-6-O-[(2-aminoethoxy)hydroxyphosphinyl]-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-(6-mercaptohexyl hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—SH

RN 853729-75-6 CAPLUS

CN D-myo-Inositol, O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→4)-O-2-amino-2-deoxy-α-D-glucopyranosyl-(1→6)-, 1-(6-mercaptohexyl hydrogen phosphate) (9CI) (CA INDEX NAME)

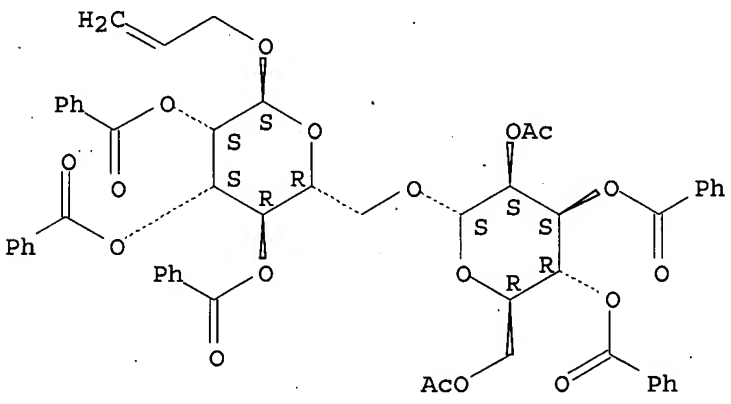
L22 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:509872 CAPLUS
DOCUMENT NUMBER: 137:370289
TITLE: A highly efficient synthesis of an octasaccharide, the repeating unit of the cell-wall mannan of Trichophyton mentagrophytes and T. rubrum
AUTHOR(S): Ning, Jun; Heng, Linsen; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Carbohydrate Research (2002), 337(13), 1159-1164
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:370289

AB A highly concise and effective synthesis of the mannose octasaccharide repeating unit of the cell-wall mannan of Trichophyton mentagrophytes and T. rubrum was achieved via 6-O-glycosylation of a tetrasaccharide acceptor with a tetrasaccharide donor, followed by deprotection. The key tetrasaccharide was constructed by selective 6-O-glycosylation of allyl 3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranoside with 6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate, then with 2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate. The tetrasaccharide acceptor was obtained by selective 6-O-deacetylation of the key tetrasaccharide, while the tetrasaccharide donor was obtained by deallylation, followed by trichloroacetimidation.

IT 474959-36-9P 474959-37-0P 474959-39-2P
474959-42-7P 474959-44-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(highly efficient synthesis of an octasaccharide repeating unit of cell-wall mannan of T. mentagrophytes and T. rubrum via regio- and stereoselective glycosylation)

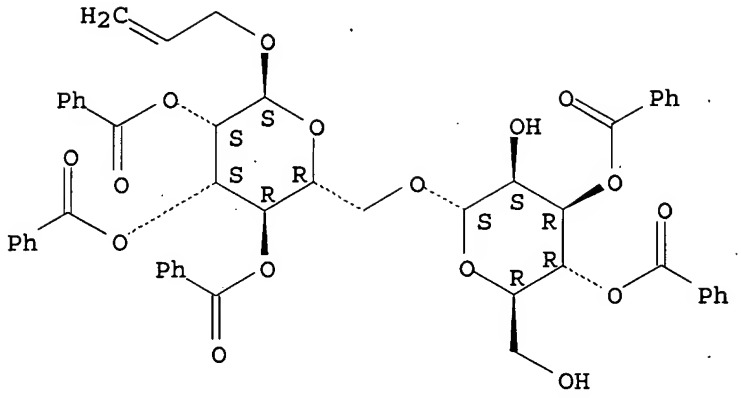
RN 474959-36-9 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl 6-O-(2,6-di-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranosyl)-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 474959-37-0 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl 6-O-(3,4-di-O-benzoyl-α-D-mannopyranosyl)-, 2,3,4-tribenzoate (9CI) (CA INDEX NAME)

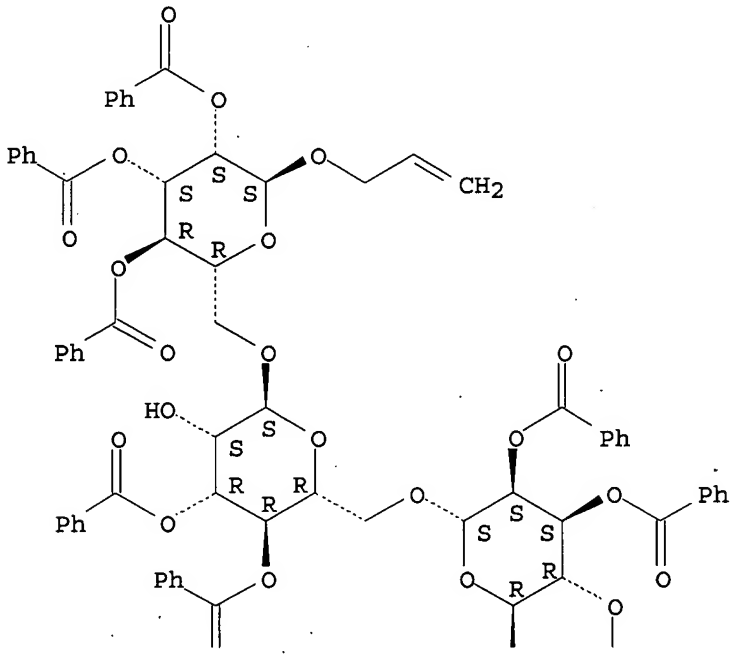
Absolute stereochemistry. Rotation (-).



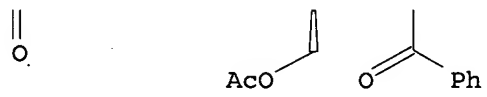
RN 474959-39-2 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



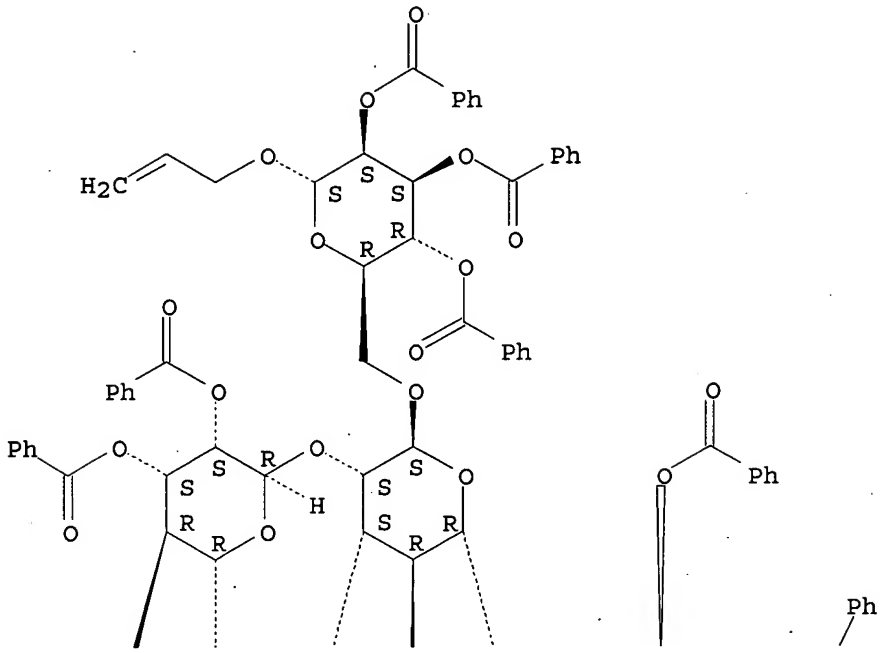
PAGE 2-A



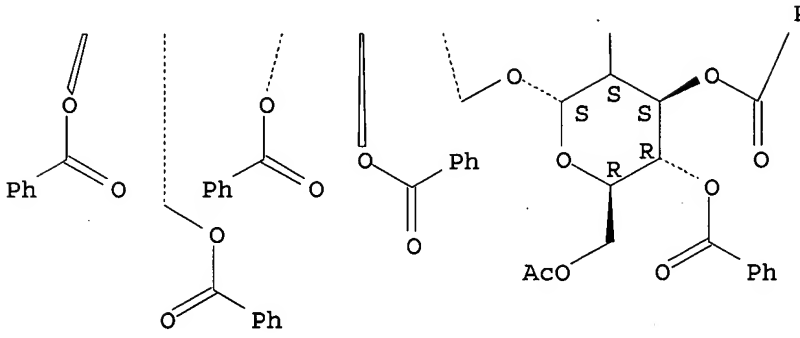
RN 474959-42-7 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)]-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

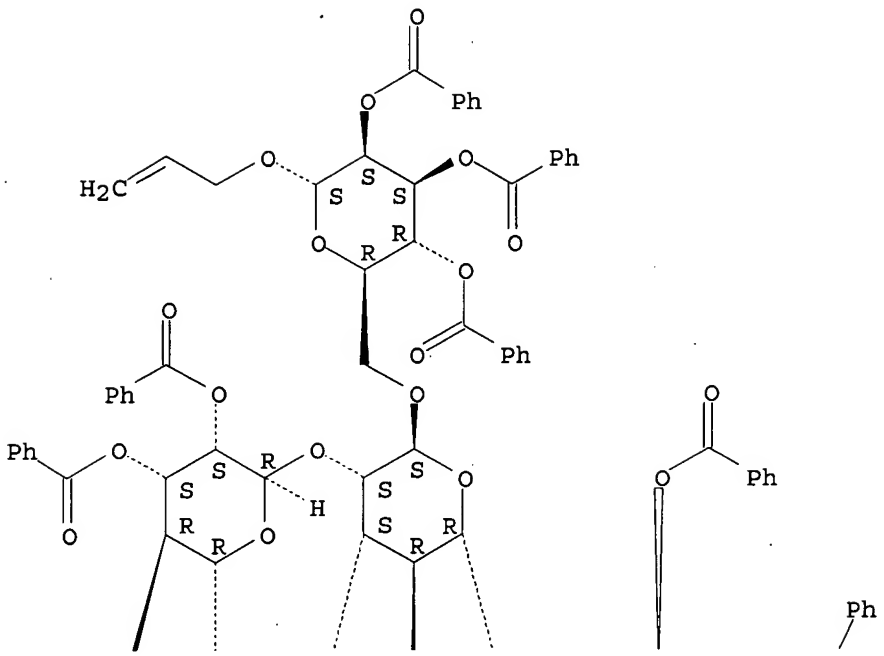


RN 474959-44-9 CAPLUS

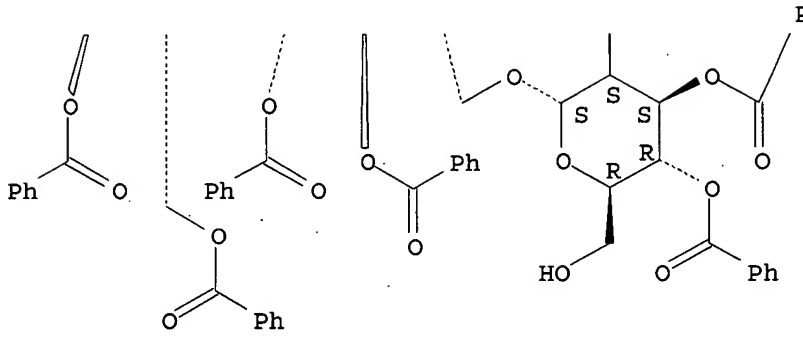
CN α-D-Mannopyranoside, 2-propenyl O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-[2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)]-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A



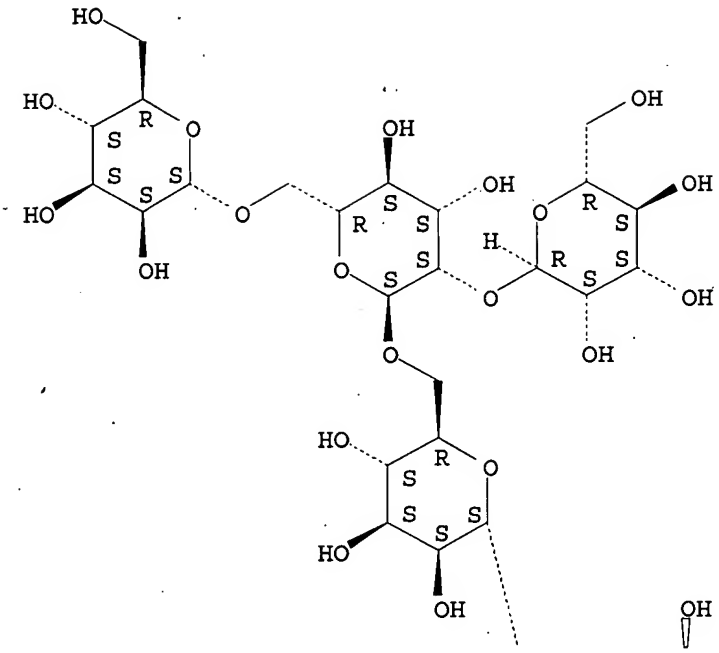
IT 474959-29-0P 474959-40-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(highly efficient synthesis of an octasaccharide repeating unit of cell-wall mannan of T. mentagrophytes and T. rubrum via regio- and stereoselective glycosylation)

RN 474959-29-0 CAPLUS

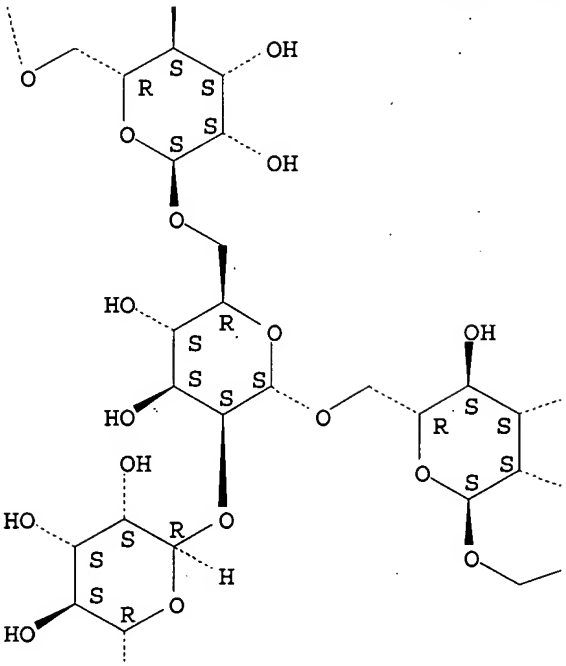
CN α-D-Mannopyranoside, 2-propenyl O-α-D-mannopyranosyl-(1→2)-O-[α-D-mannopyranosyl-(1→6)]-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→6)-O-[α-D-mannopyranosyl-(1→2)]-O-α-D-mannopyranosyl-(1→6)- (9CI) (CA INDEX NAME)

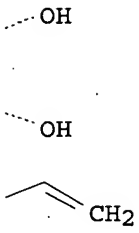
Absolute stereochemistry. Rotation (+).

PAGE 1-A



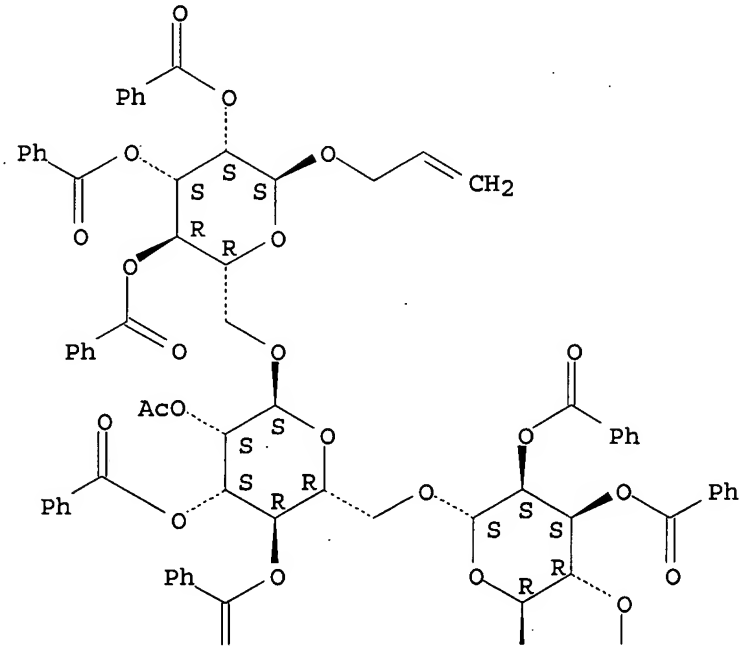
PAGE 2-A

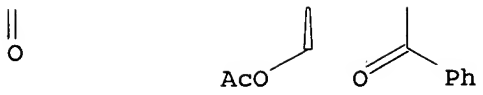




RN 474959-40-5 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-2-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).





REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

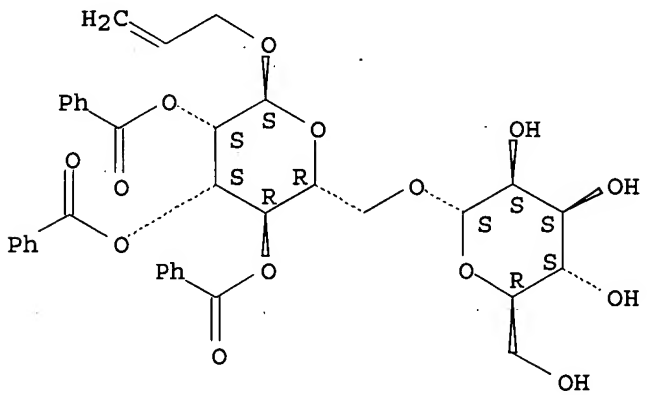
L22 ANSWER 26 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:389525 CAPLUS
DOCUMENT NUMBER: 137:155120
TITLE: A facile synthesis of mannose tri- and tetrasaccharide repeating units of fungal cell-wall polysaccharide from Microsporum and Trichophyton species
AUTHOR(S): Zhu, Yuliang; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, Beijing, 100085, Peop. Rep. China
SOURCE: Synthetic Communications (2002), 32(8), 1219-1226
CODEN: SYNCAV; ISSN: 0039-7911
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:155120

AB A facile synthesis of the trisaccharide α-D-mannopyranosyl-(1→2)-α-D-mannopyranosyl-(1→6)-α-D-mannopyranose and the tetrasaccharide α-D-mannopyranosyl-(1→2)-α-D-mannopyranosyl-(1→6)-α-D-mannopyranosyl-(1→6)-D-mannopyranose, the repeating units of fungal cell-wall polysaccharide from Microsporum gypseum and Trichophyton, was achieved using α-(1→2)-linked disaccharide imidate as the donor. The disaccharide imidate was prepared from the self-condensation of 3,4,6-tri-O-benzoyl-1,2-O-allyloxyethylidene-β-D-mannopyranose.

IT 287972-98-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of oligomannosides in the repeating units of fungal cell-wall polysaccharide from Microsporum and Trichophyton species)

RN 287972-98-9 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl 6-O-α-D-mannopyranosyl-, 2,3,4-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 445401-05-8P 445401-06-9P 445401-08-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

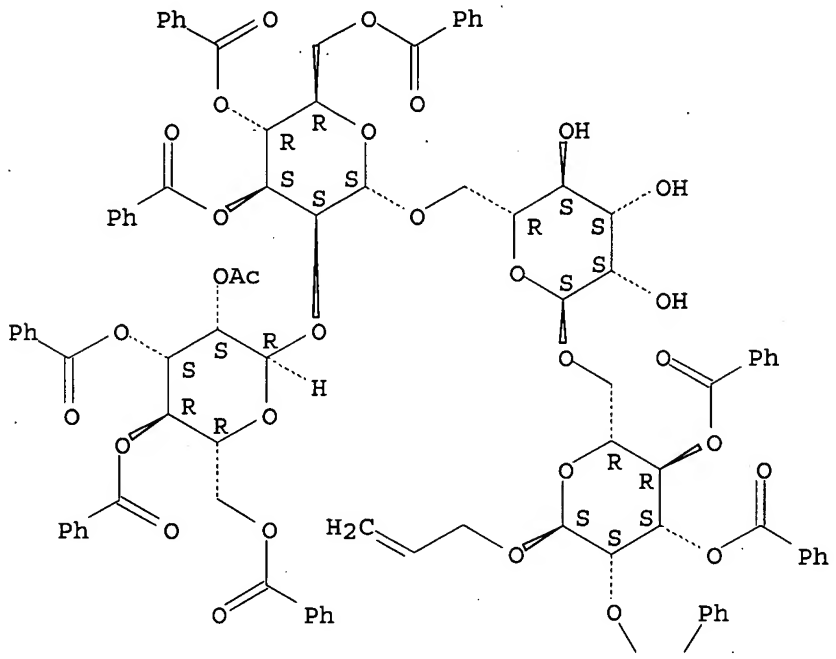
(Reactant or reagent)
(preparation of oligomannosides in the repeating units of fungal cell-wall polysaccharide from Microsporum and Trichophyton species)

RN 445401-05-8 CAPLUS

CN α-D-Mannopyranoside, 2-propenyl O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



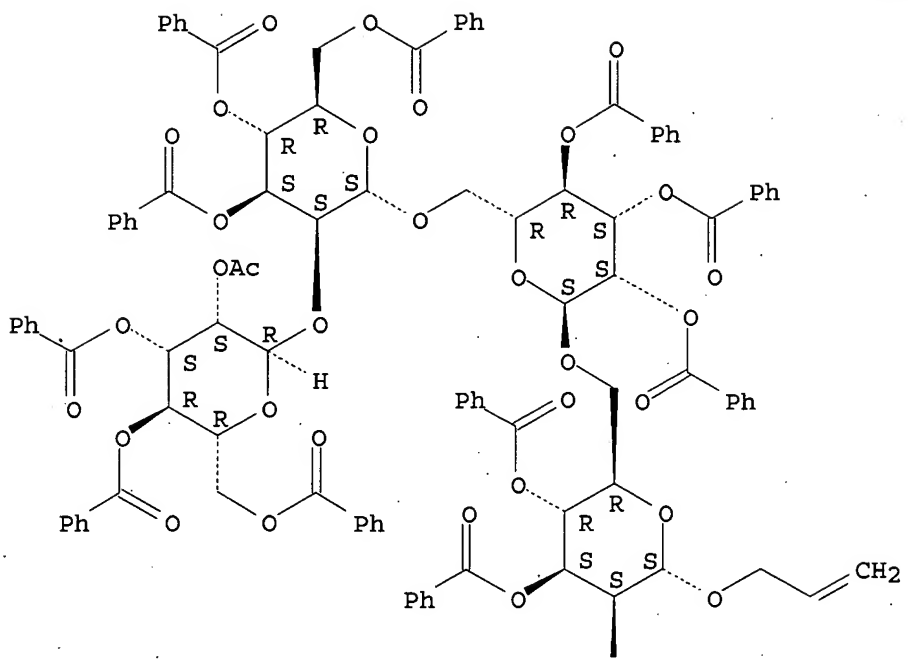
PAGE 2-A

RN 445401-06-9 CAPLUS

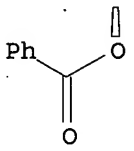
CN α-D-Mannopyranoside, 2-propenyl O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



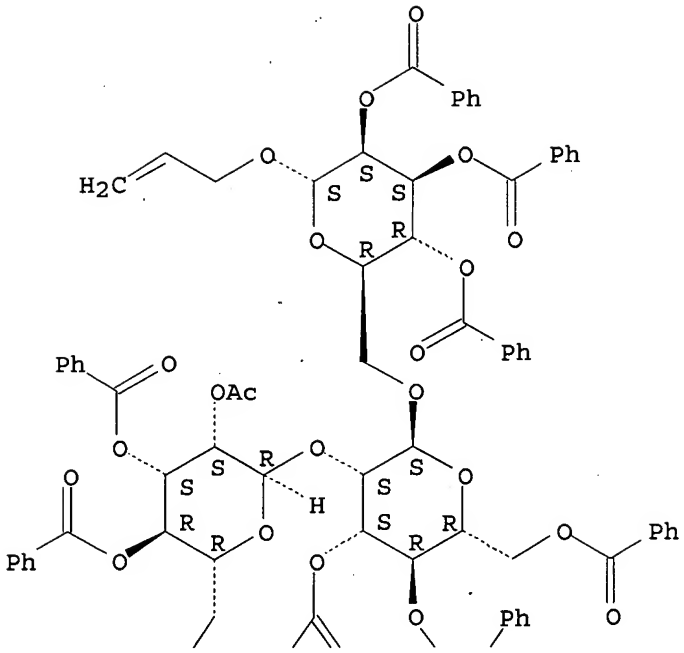
PAGE 2-A



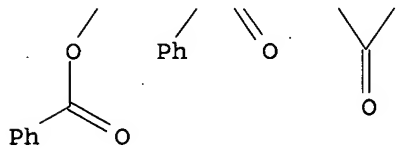
RN 445401-08-1 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

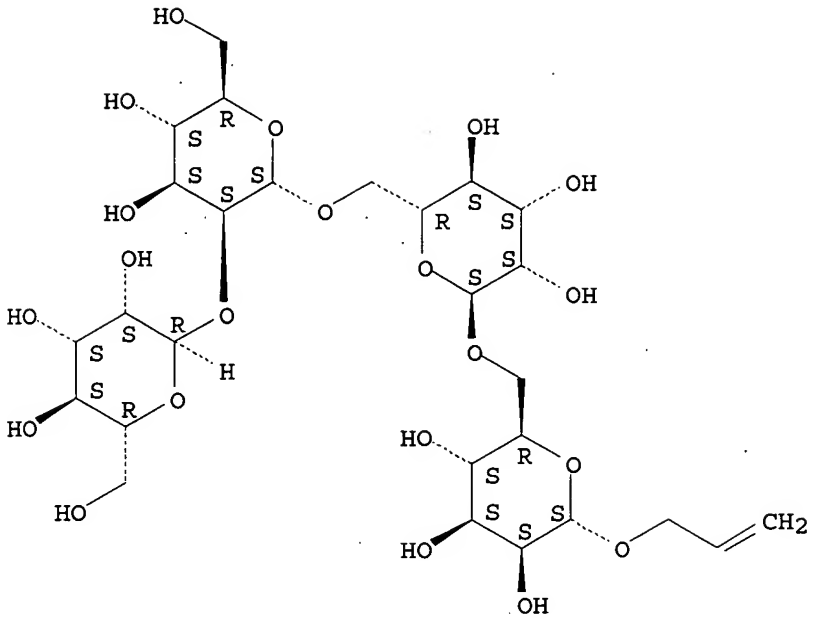


PAGE 2-A



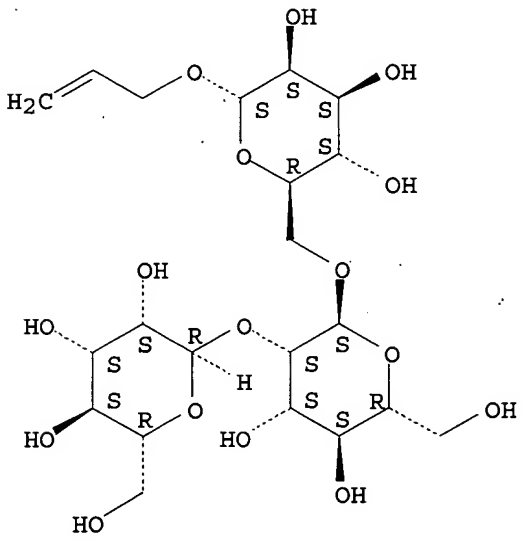
IT 445401-07-0P 445401-09-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of oligomannosides in the repeating units of fungal cell-wall polysaccharide from Microsporum and Trichophyton species)
RN 445401-07-0 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→6)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 445401-09-2 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-α-D-mannopyranosyl-(1→2)-O-α-D-mannopyranosyl-(1→6)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 27 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:201195 CAPLUS
DOCUMENT NUMBER: 136:401940
TITLE: A linear synthesis of branched high-mannose oligosaccharides from the HIV-1 viral surface envelope glycoprotein gp120
AUTHOR(S): Ratner, Daniel M.; Plante, Obadiah J.; Seeberger, Peter H.
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of

Technology, Cambridge, MA, 02139, USA
SOURCE: European Journal of Organic Chemistry (2002), (5), 826-833
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:401940
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Described is a linear solution-phase synthesis of the HIV-1 viral surface envelope glycoprotein gp120 high-mannose nonasaccharide pentyl glycoside I. Envisioning the automated solid-phase assembly of complex carbohydrates, the synthesis of the nonasaccharide I and the related tri- and hexamannosides demonstrates the facile assembly of highly branched structures in a stepwise fashion incorporating monosaccharide building blocks. A differentially protected core trisaccharide was prepared and further elongated in two high-yielding tri-mannosylations to furnish the triantennary structure. The tri-, hexa-, and nonamannoside n-pentyl glycosides obtained via the described synthesis are currently being used for detailed study of the carbohydrate protein interactions responsible for binding of the anti-HIV protein cyanovirin-N to the glycoprotein gp120.

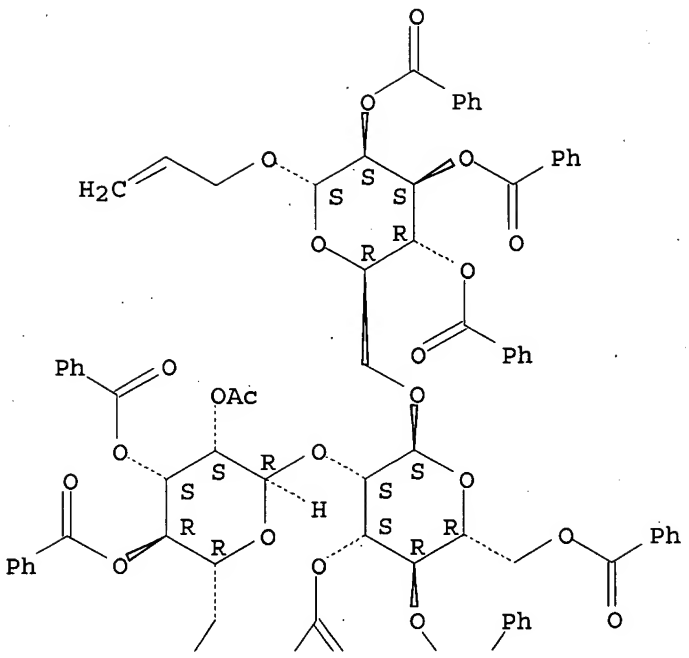
IT 429679-54-9P 429679-55-0P 429679-62-9P
429679-63-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(linear synthesis of branched high-mannose oligosaccharides from the HIV-1 viral surface envelope glycoprotein gp120)

RN 429679-54-9 CAPLUS

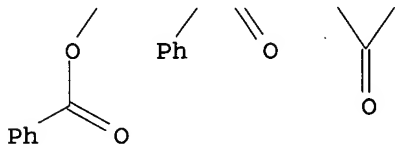
CN β-D-Mannopyranoside, 4-pentenyl O-2-O-acetyl-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→3)-O-[2-O-acetyl-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)]-O-2,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-O-[O-2-O-acetyl-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→3)]-2,4-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 2-A



L22 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:803349 CAPLUS
DOCUMENT NUMBER: 138:39485
TITLE: Rapid synthesis of a glycosylphosphatidylinositol-based malaria vaccine using automated solid-phase oligosaccharide synthesis
AUTHOR(S): Hewitt, Michael C.; Snyder, Daniel A.; Seeberger, Peter H.
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Journal of the American Chemical Society (2002), 124(45), 13434-13436
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:39485

AB Described is an automated synthesis of hexasaccharide malarial toxin, currently under development as a malaria vaccine candidate. Using a combination of automated solid-phase methods and solution-phase fragment coupling, the target glycosylphosphatidylinositol was assembled in a matter of days, compared with several weeks for a comparable solution-phase synthesis.

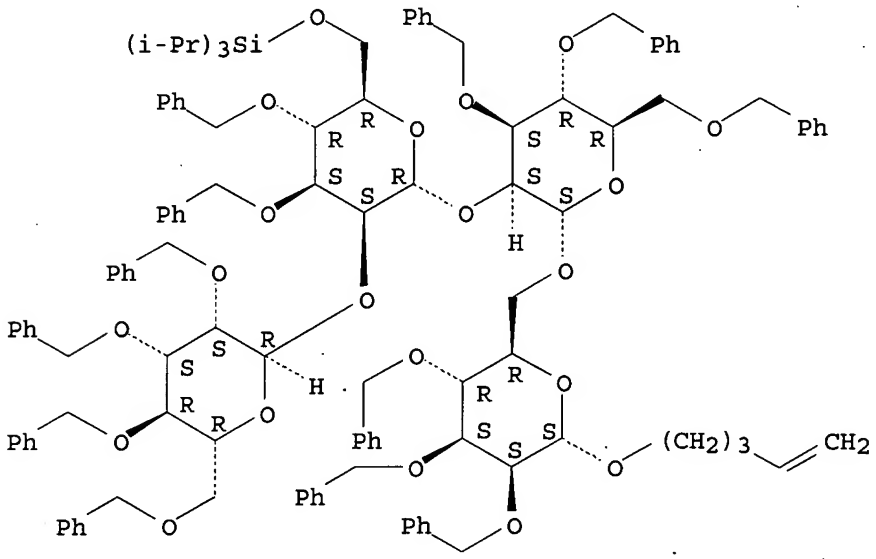
IT 478065-23-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(automated solid phase synthesis of glycosylphosphatidylinositol to develop into malaria vaccine candidate)

RN 478065-23-5 CAPLUS

CN α-D-Mannopyranoside, 4-pentenyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4-bis-O-(phenylmethyl)-6-O-[tris(1-methylethyl)silyl]-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-2,3,4-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:596291 CAPLUS
DOCUMENT NUMBER: 143:212114
TITLE: Preparation of 2,6-branched oligosaccharide with immunostimulant activity
INVENTOR(S): Ning, Jun; Heng, Linsen; Kong, Fanzuo
PATENT ASSIGNEE(S): Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1421452	A	20030604	CN 2001-139970	20011122

PRIORITY APPLN. INFO.: CN 2001-139970 20011122
OTHER SOURCE(S): CASREACT 143:212114

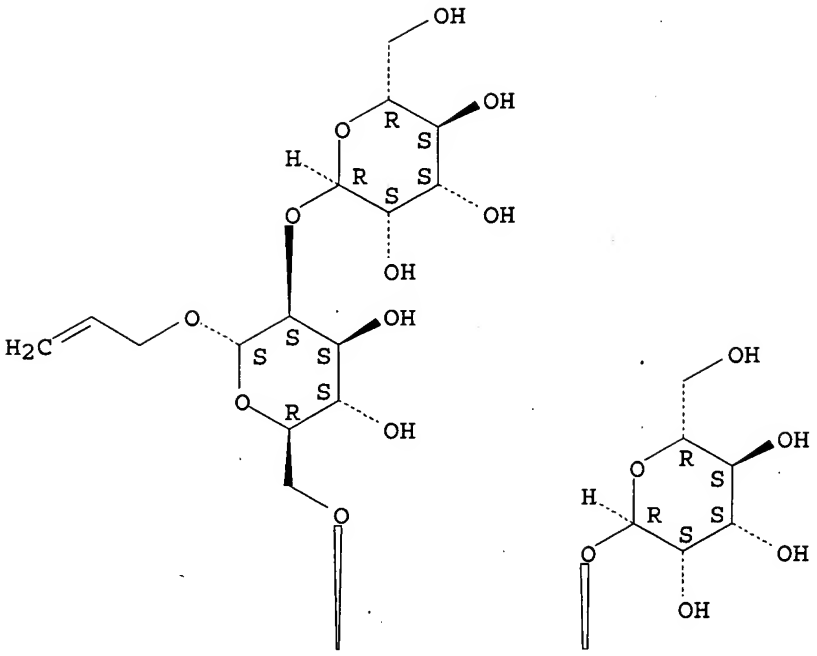
AB The branched oligosaccharide with its principal chain being 1→6 linkage and its branch being 1→2 linkage and its conjugate with ethylene glycol or glycerol, useful as antiviral, antibacterial, antitumor, and as immunostimulants, are prepared by conventional coupling reaction of glycosyl receptor with glycosyl donor. An oligosaccharide, α-D-Mannopyranosyl-(1→6)-[α-D-mannopyranosyl-(1→2)]-α-D-mannopyranosyl-(1→6)-α-D-mannopyranosyl-(1→6)-α-D-mannopyranosyl-(1→6)-[α-D-mannopyranosyl-(1→2)]-α-D-mannopyranosyl-(1→6)-α-D-mannopyranoside was prepared and showed immunostimulant activity at i.p. 1 mg/kg in mice.

IT 414878-01-6P 414878-02-7P 474959-29-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2,6-branched oligosaccharide with immunostimulant activity)

RN 414878-01-6 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-α-D-mannopyranosyl-(1→6)-O-[α-D-mannopyranosyl-(1→2)]-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→6)-O-[α-D-mannopyranosyl-(1→2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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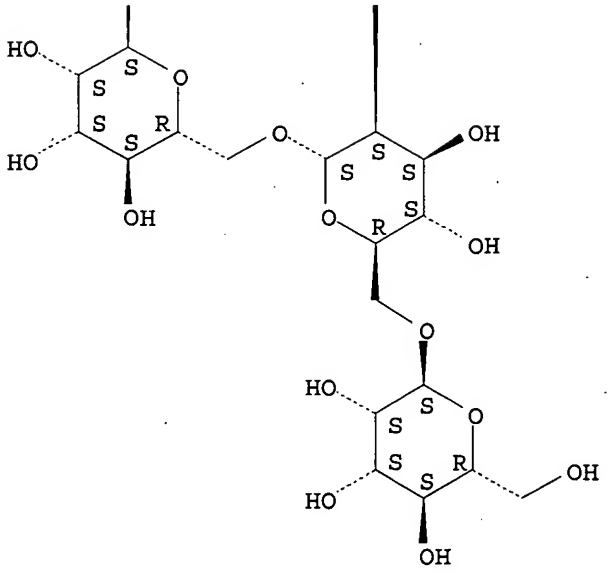
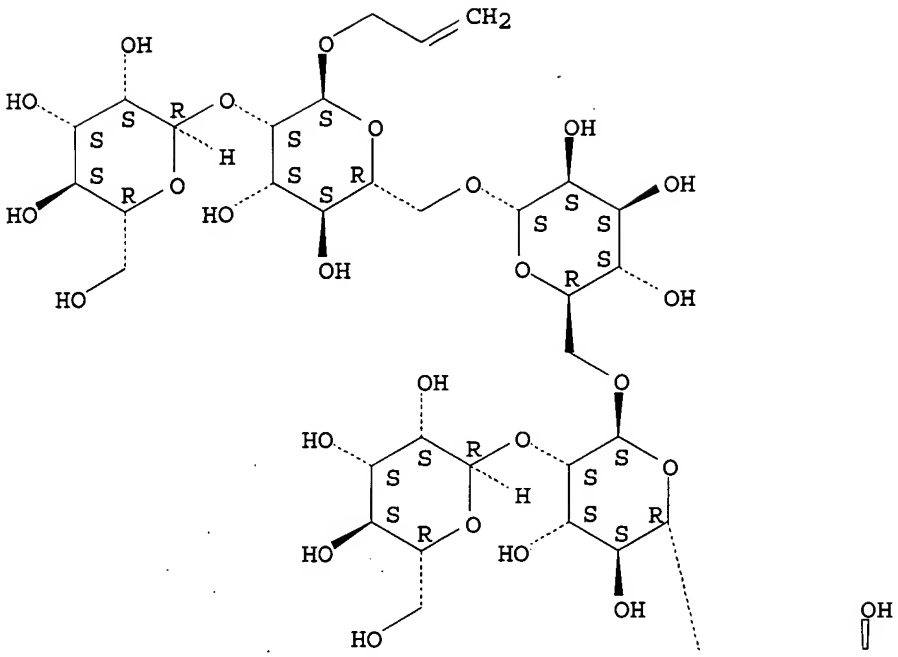


RN 414878-02-7 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-α-D-mannopyranosyl-(1→6)-O-[α-D-mannopyranosyl-(1→2)]-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→6)-O-[α-D-mannopyranosyl-(1→2)]-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→6)-O-[α-D-mannopyranosyl-(1→2)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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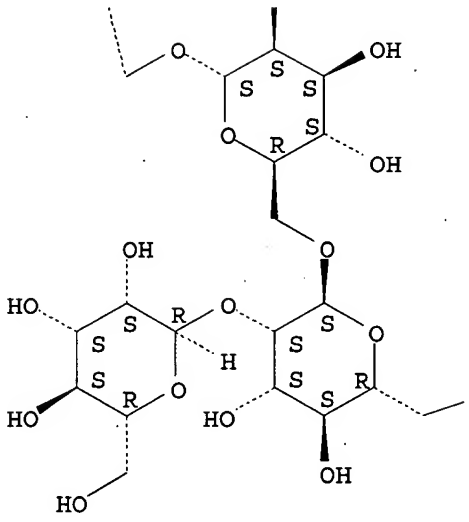
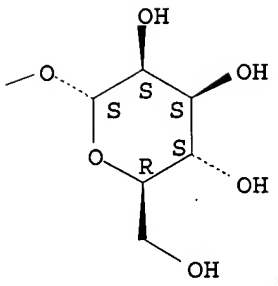
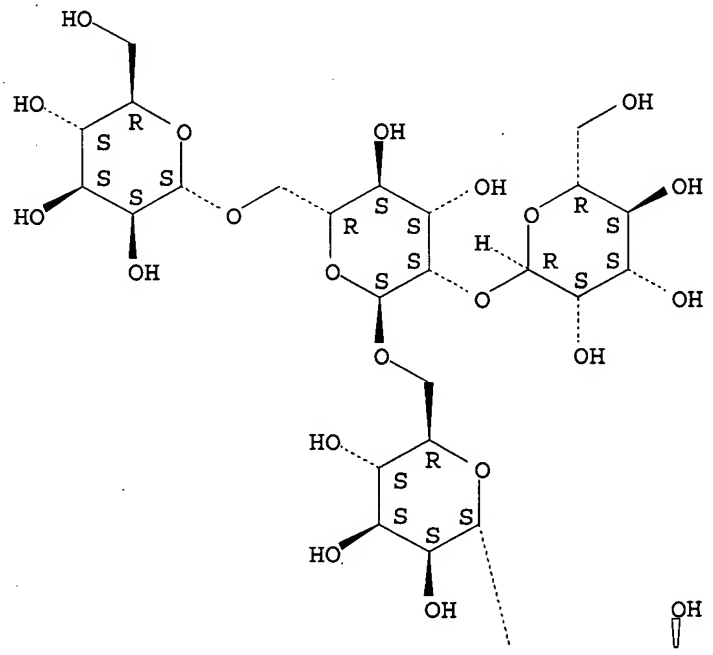




RN 474959-29-0 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-α-D-mannopyranosyl-(1→2)-O-[α-D-mannopyranosyl-(1→6)]-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→6)-O-α-D-mannopyranosyl-(1→6)-O-[α-D-mannopyranosyl-(1→2)]-O-α-D-mannopyranosyl-(1→6)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



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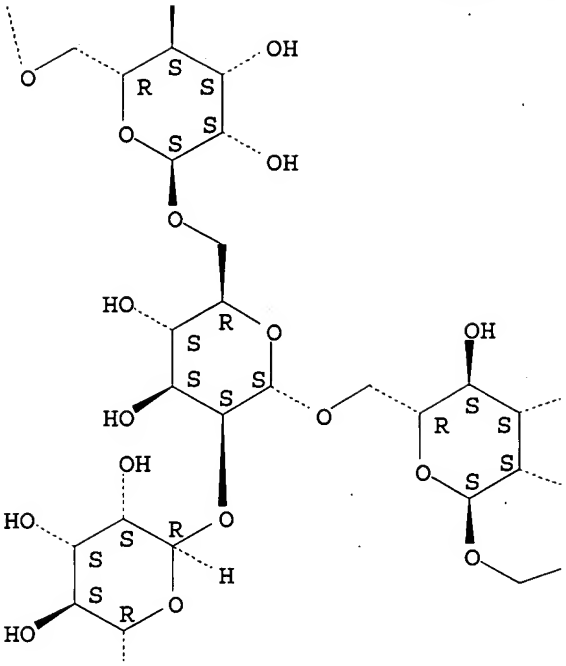

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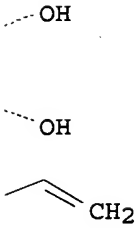


PAGE 3-A

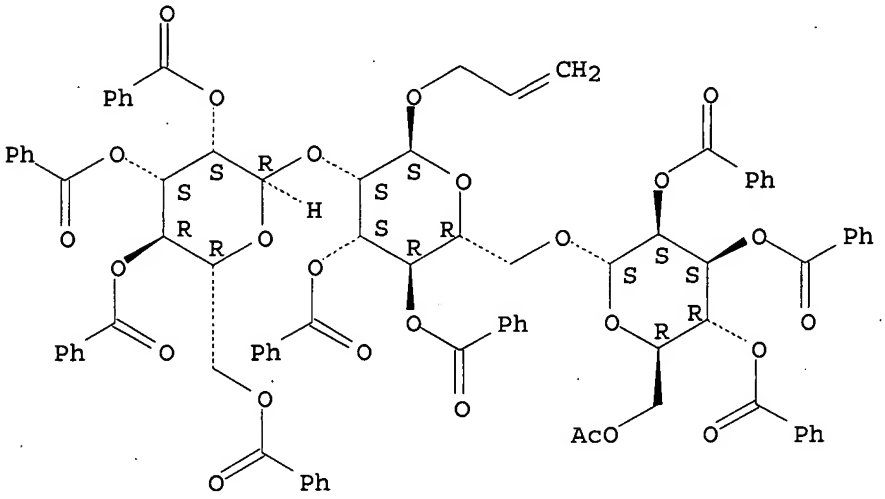
IT 414878-10-7P 414878-11-8P 414878-15-2P
414878-17-4P 474959-36-9P 474959-37-0P
474959-39-2P 474959-42-7P 474959-44-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 2,6-branched oligosaccharide with immunostimulant activity)

RN 414878-10-7 CAPLUS

CN α-D-Mannopyranoside, 2-propenyl O-6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)]-, dibenzoate (9CI) (CA INDEX NAME)

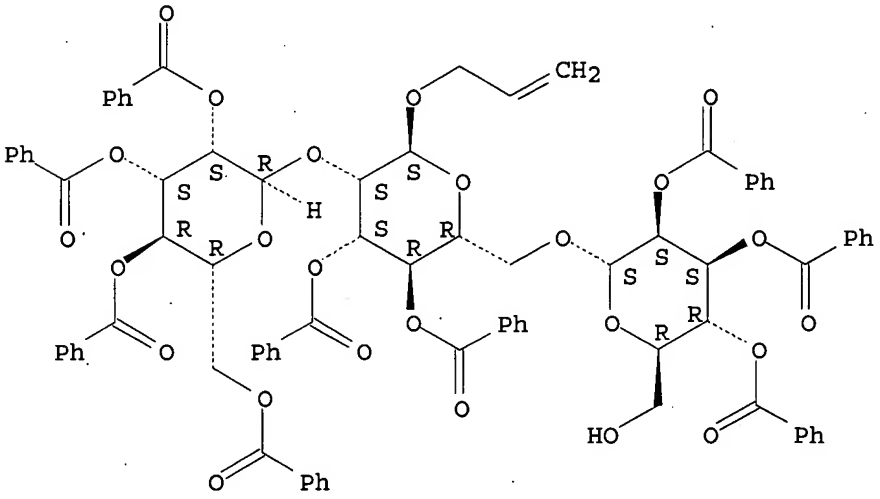
Absolute stereochemistry. Rotation (-).



RN 414878-11-8 CAPLUS

CN α-D-Mannopyranoside, 2-propenyl O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-[2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 3,4-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

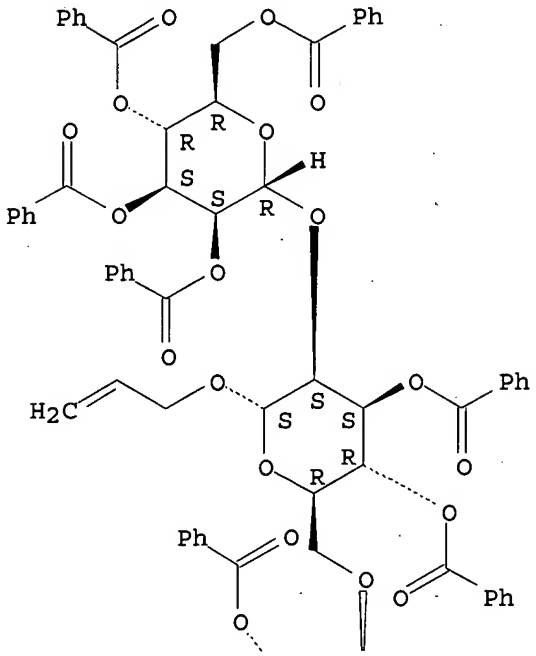


RN 414878-15-2 CAPLUS

CN α-D-Mannopyranoside, 2-propenyl O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)]-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)]-, dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



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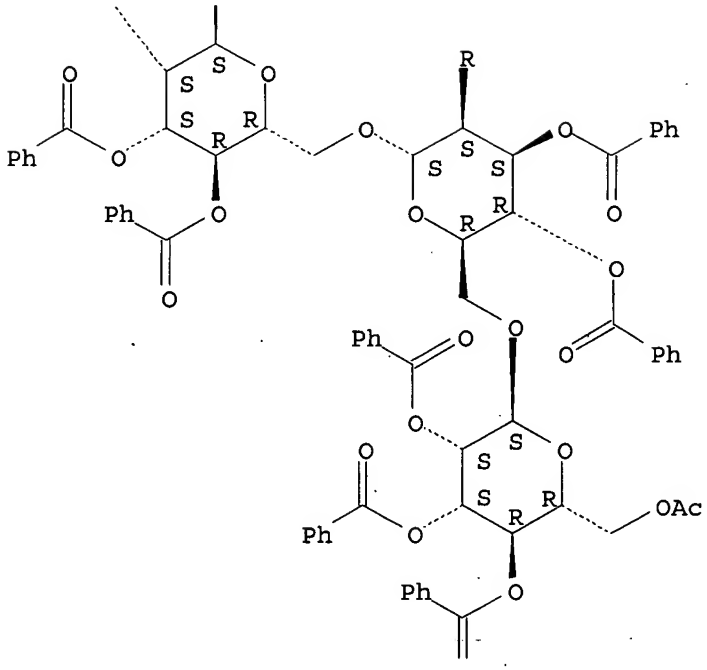
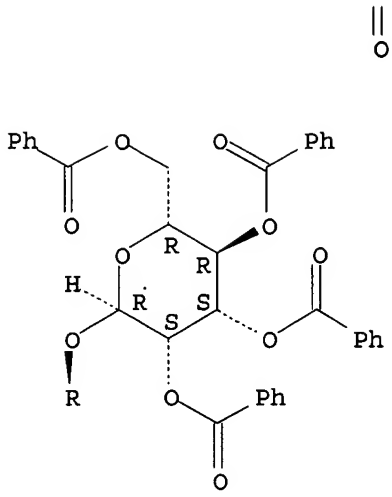
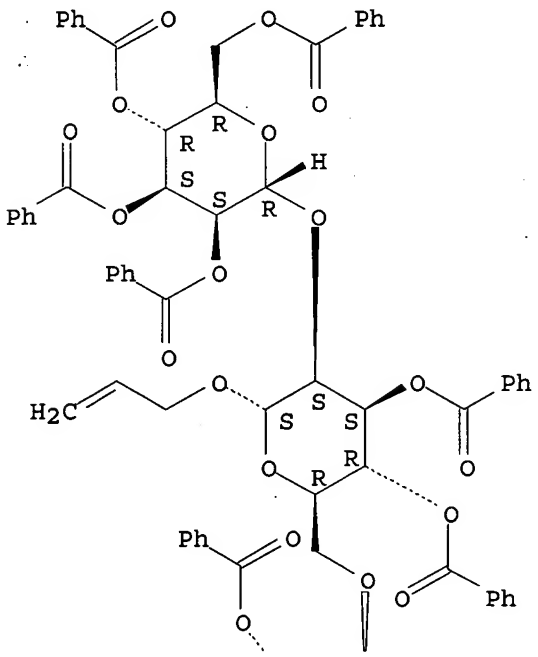




RN 414878-17-4 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-[2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)]-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)]-, 3,4-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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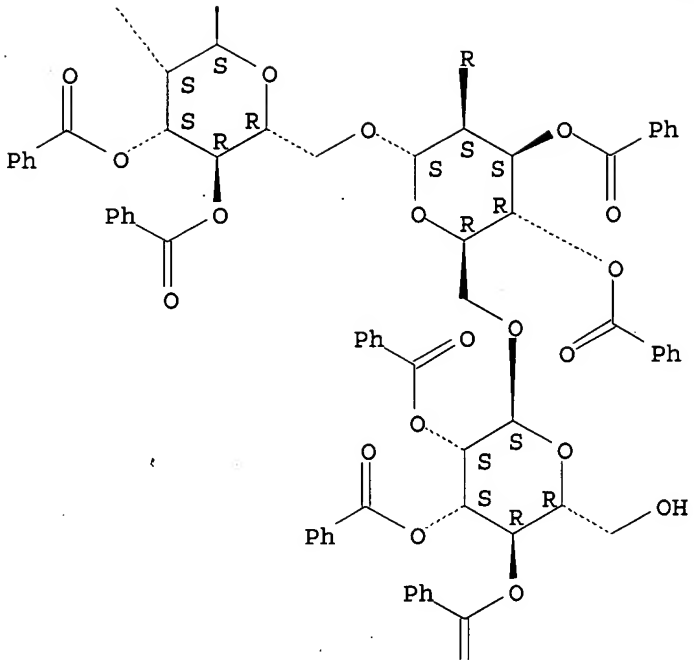

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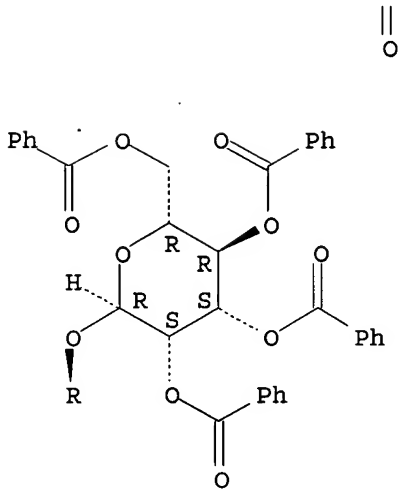
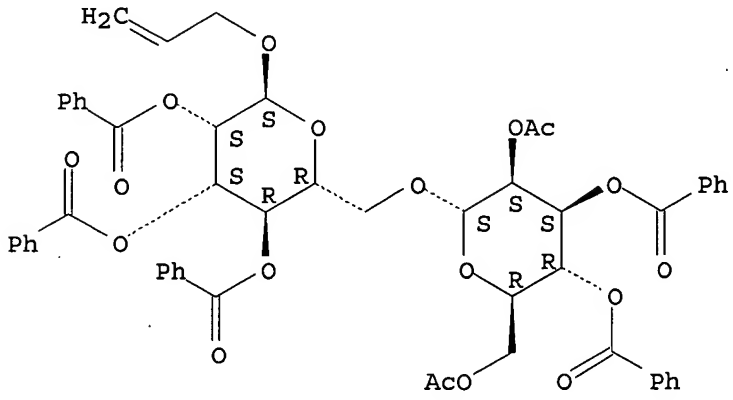


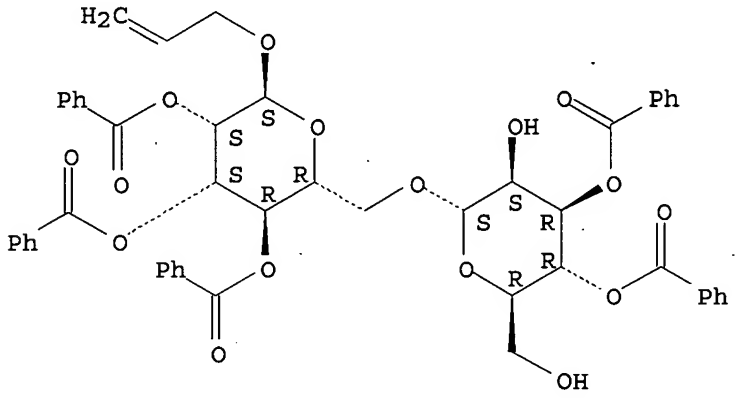
RN 474959-36-9 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl 6-O-(2,6-di-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranosyl)-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 474959-37-0 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl 6-O-(3,4-di-O-benzoyl-α-D-mannopyranosyl)-, 2,3,4-tribenzoate (9CI) (CA INDEX NAME)

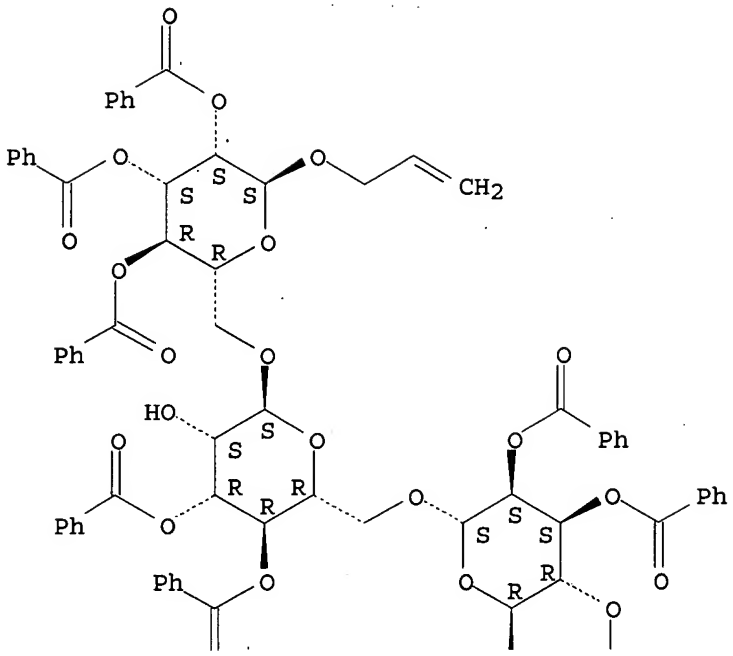
Absolute stereochemistry. Rotation (-).



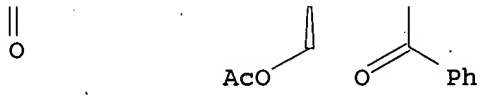
RN 474959-39-2 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



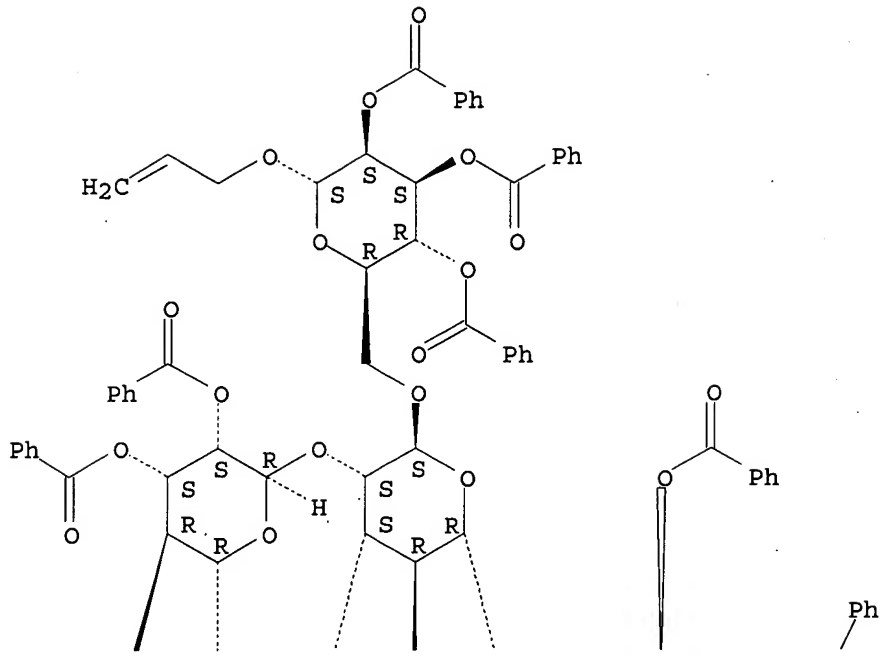
PAGE 2-A



RN 474959-42-7 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)]-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



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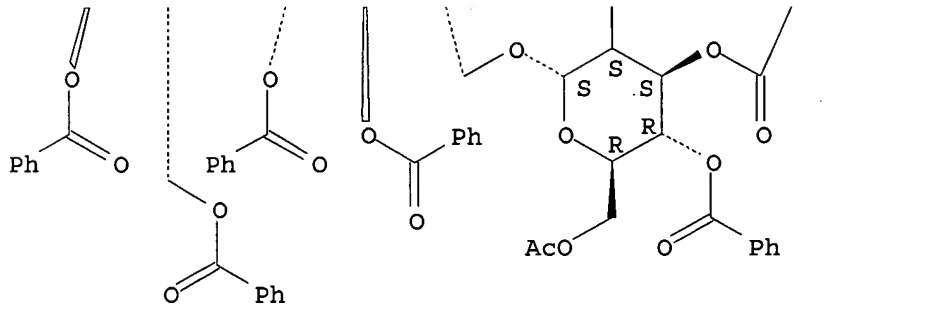
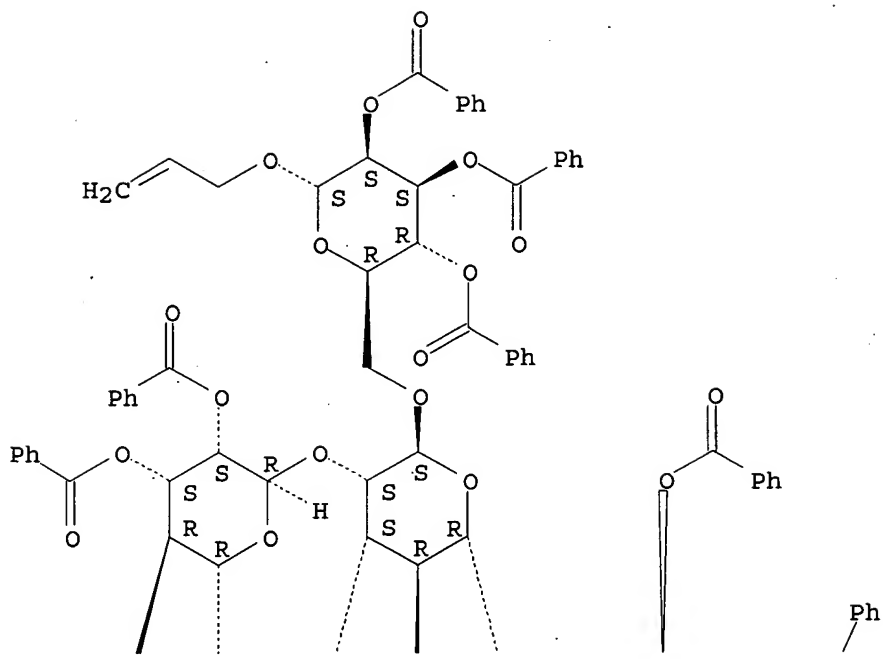


RN 474959-44-9 CAPLUS
CN α-D-Mannopyranoside, 2-propenyl O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-[2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)]-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



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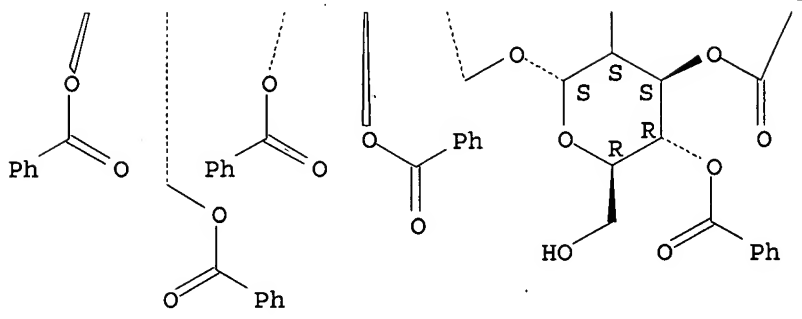
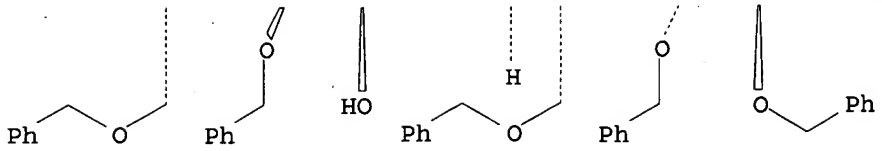
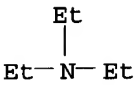




CM 2

CRN 121-44-8
CMF C6 H15 N



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:292949 CAPLUS
DOCUMENT NUMBER: 135:61492
TITLE: Synthesis of inositol glycan cyclic phosphates
AUTHOR(S): Jaworek, C. H.; Iacobucci, S.; Calias, P.; d'Alarcao, M.
CORPORATE SOURCE: Michael Chemistry Laboratory, Department of Chemistry, Tufts University, Medford, MA, 02155, USA
SOURCE: Carbohydrate Research (2001), 331(4), 375-391
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:61492

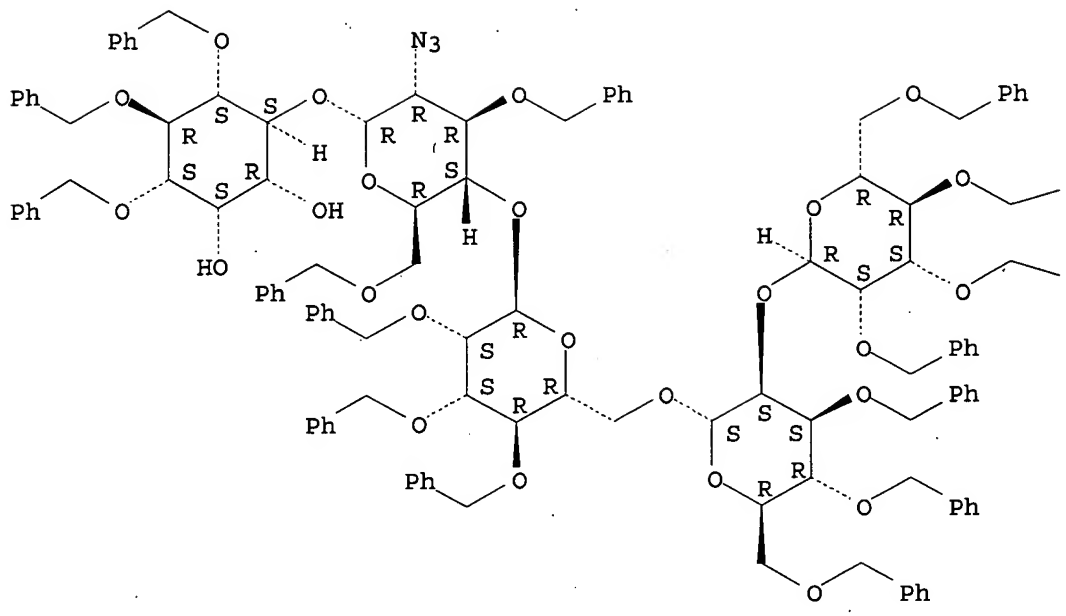
AB An efficient synthesis of tri-, tetra-, and pentasaccharide cyclic phosphates, structurally related to natural inositol phosphate glycans, is reported. The title compds. were assembled by PhSeOTf-promoted glycosylation of the known glucosamine precursor, t-butyldimethylsilyl 2-azido-3,6-di-O-benzyl-2-deoxy-β-D-glucopyranoside with protected 1-methylthio mono-, di-, and trimannosides, and, after conversion into glycosyl fluorides, Cp2ZrCl2-AgOTf-promoted glycosylation of differentially protected optically pure 1D-myo-inositol. The syntheses were completed by installing the cyclic phosphate moieties with methylpyridinium dichlorophosphate and finally, removal of all protecting groups by dissolving-metal reduction

IT 310870-26-9P 344914-78-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of inositol glycan cyclic phosphates)

RN 310870-26-9 CAPLUS
CN D-myo-Inositol, O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-O-2,3,4-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-3,4,5-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



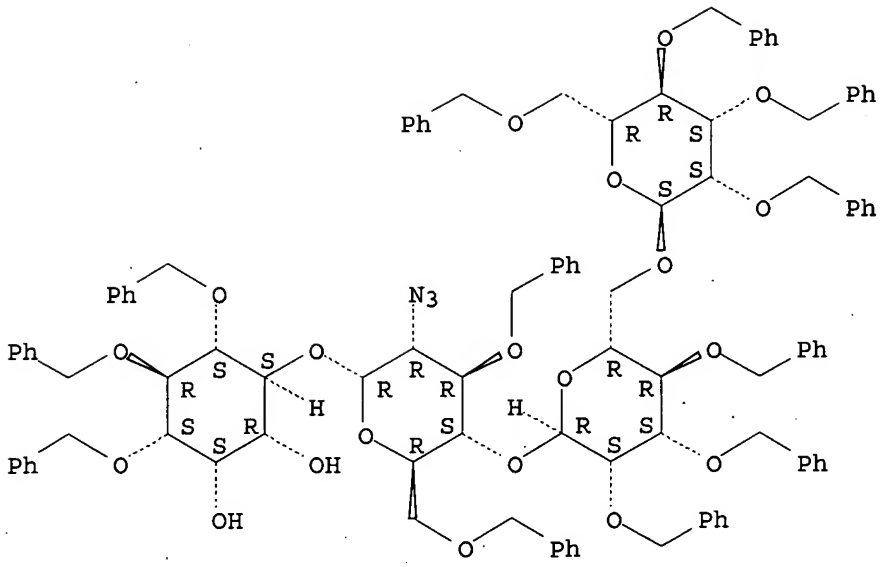
PAGE 1-B

Ph

Ph

RN 344914-78-9 CAPLUS
CN D-myo-Inositol, O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-O-2,3,4-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-3,4,5-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:743161 CAPLUS
DOCUMENT NUMBER: 134:29634
TITLE: Inositolphosphoglycan mediators structurally related to glycosyl phosphatidylinositol anchors: synthesis, structure and biological activity
AUTHOR(S): Martin-Lomas, Manuel; Khiar, Noureddine; Garcia, Salud; Koessler, Jean-Luc; Nieto, Pedro M.; Rademacher, Thomas W.
CORPORATE SOURCE: Grupo de Carbohidratos, Instituto de Investigaciones Quimicas CSIC-UNSE, Seville, 41092, Spain
SOURCE: Chemistry--A European Journal (2000), 6(19), 3608-3621
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:29634
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The preparation of the pseudopentasaccharide I, an inositolphosphoglycan (IPG) that contains the conserved linear structure of glycosyl phosphatidylinositol anchors (GPI anchors), was carried out by using a highly convergent 2+3-block synthesis approach which involves imidate and sulfoxide glycosylation reactions. The preferred solution conformation of this structure was determined by using NMR spectroscopy and mol. dynamics simulations prior to carrying out quant. structure-activity relationship studies in connection with the insulin signaling process. The ability of I to stimulate lipogenesis in rat adipocytes as well as to inhibit cAMP dependent protein kinase and to activate pyruvate dehydrogenase phosphatase was investigated. I did not show any significant activity, which may be taken as a strong indication that the GPI anchors are not the precursors of the IPG mediators.

IT 310870-26-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

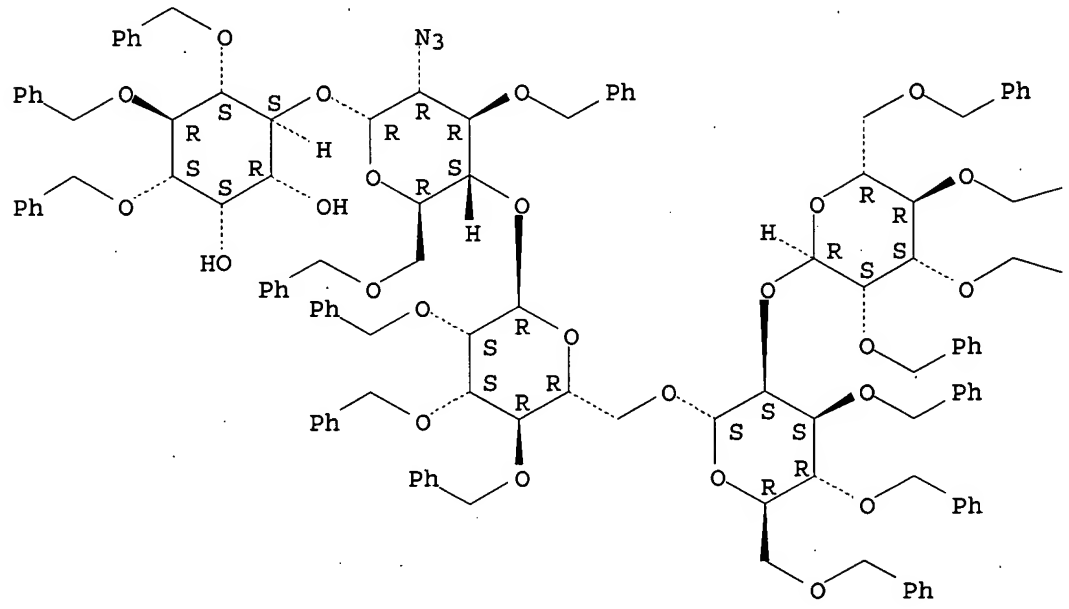
(Reactant or reagent)
(synthesis, structure, and biol. activity of inositolphosphoglycan mediators structurally related to GPI anchors)

RN 310870-26-9 CAPLUS

CN D-myo-Inositol, O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-O-2,3,4-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-3,4,5-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

Ph

Ph

REFERENCE COUNT: 100 THERE ARE 100 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:184003 CAPLUS

DOCUMENT NUMBER: 132:347814

TITLE: Rapid assembly of oligosaccharides: 1,2-diacetal-mediated reactivity tuning in the

coupling of glycosyl fluorides

AUTHOR(S): Baeschlin, Daniel K.; Green, Luke G.; Hahn, Michael G.; Hinzen, Berthold; Ince, Stuart J.; Ley, Steven V.
CORPORATE SOURCE: Department of Chemistry, University of Cambridge, Cambridge, CB2 1EW, UK
SOURCE: Tetrahedron: Asymmetry (2000), 11(1), 173-197
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:347814

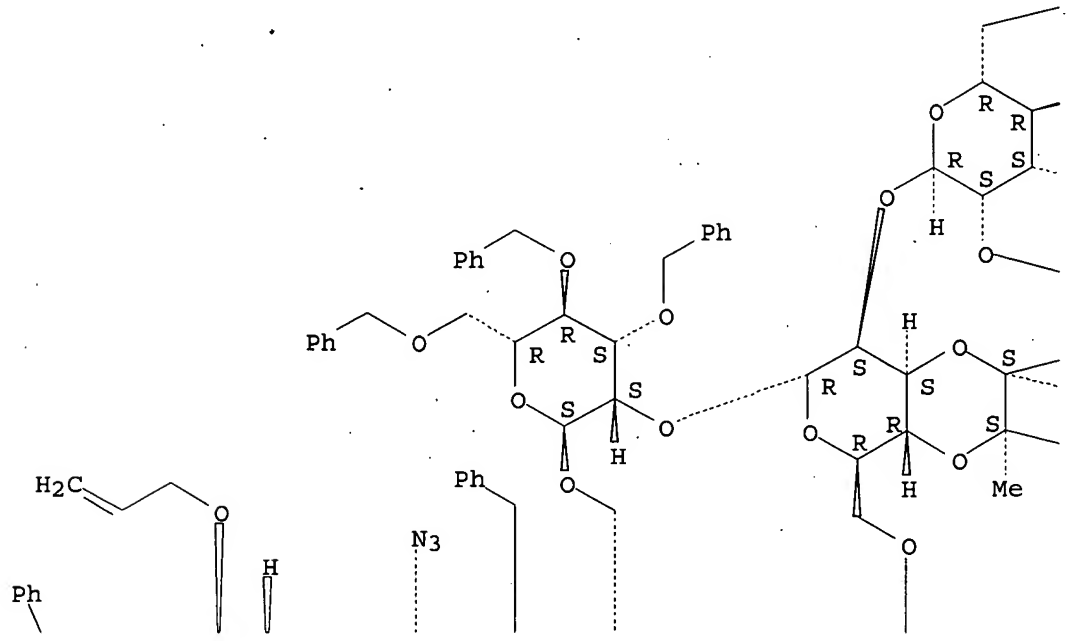
AB This paper describes the application of 1,2-diacetal protecting groups to control the reactivity tuning of glycosyl fluorides in oligosaccharide coupling reactions. The synthetic potential of this new methodol. is demonstrated by the "one-pot" synthesis of a linear pentasaccharide and the efficient assembly of the core oligosaccharide of the GPI anchor of yeast (Saccharomyces cerevisiae).

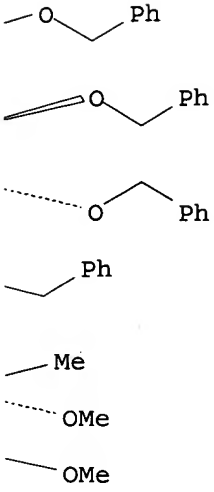
IT 270087-66-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(rapid assembly of oligosaccharides: 1,2-diacetal-mediated reactivity tuning in the coupling of glycosyl fluorides)

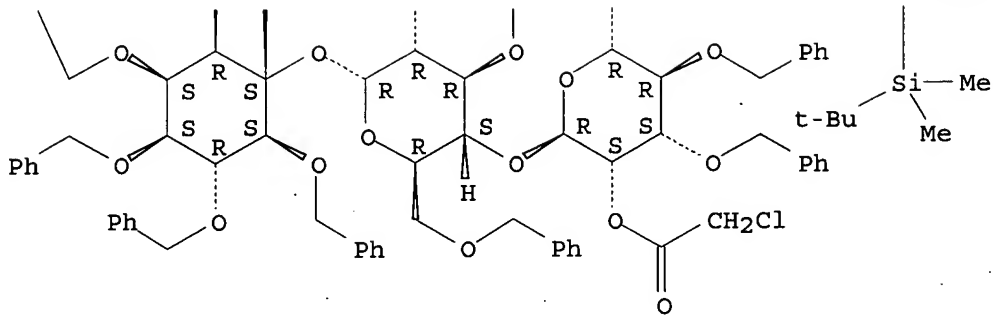
RN 270087-66-6 CAPLUS

CN D-myo-Inositol, O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4-O-[(1S,2S)-1,2-dimethoxy-1,2-dimethyl-1,2-ethanediyl]-6-O-[(1,1-dimethylethyl)dimethylsilyl]-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-O-2-O-(chloroacetyl)-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-2,3,4,5-tetrakis-O-(phenylmethyl)-1-O-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.







REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:281312 CAPLUS
DOCUMENT NUMBER: 131:19217
TITLE: Glycosylphosphatidylinositol (GPI) anchor synthesis based on versatile building blocks. Total synthesis of a GPI anchor of yeast
AUTHOR(S): Mayer, Thomas G.; Schmidt, Richard R.
CORPORATE SOURCE: Fakultat Chemie, Univ. Konstanz, Konstanz, D-78457, Germany
SOURCE: European Journal of Organic Chemistry (1999), (5), 1153-1165
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The total synthesis of a ceramide-containing GPI anchor of yeast by a combination of lipid, phosphate, and oligosaccharide chemical is reported.

IT 225924-92-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(total synthesis of GPI anchor of yeast)

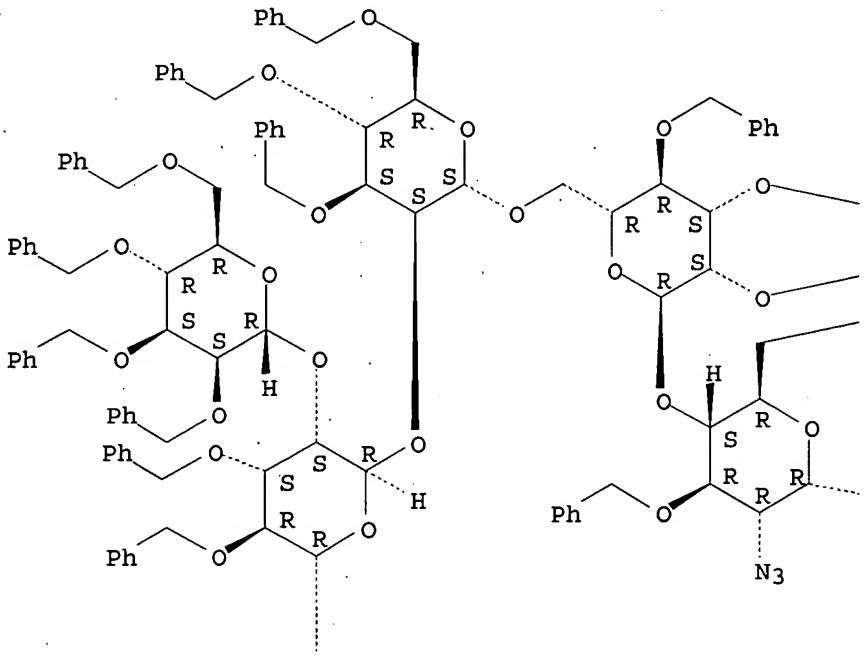
RN 225924-92-5 CAPLUS
CN D-myo-Inositol, O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-6-O-(1-hydroxy-1-oxido-6-oxo-8-phenyl-2,7-

dioxa-5-aza-1-phosphaoct-1-yl)-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-O-2,3,4-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-, 1-[(2S,3S,4R)-3,4-dihydroxy-2-[(1-oxohexacosyl)amino]octadecyl hydrogen phosphate], compd. with N,N-diethylethanamine (1:2) (9CI) (CA INDEX NAME)

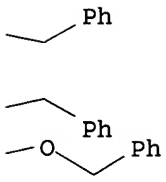
CM 1

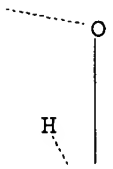
CRN 225924-91-4
CMF C189 H247 N5 O41 P2

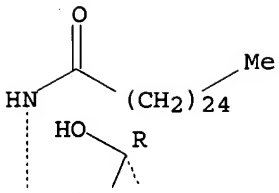
Absolute stereochemistry. Rotation (+).



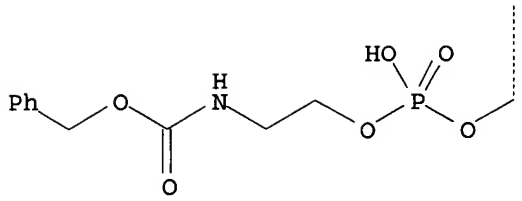
PAGE 1-B



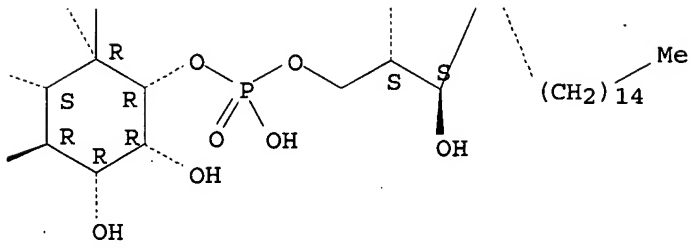




PAGE 2-A

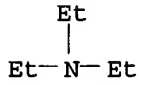


PAGE 2-B



CM 2

CRN 121-44-8
CMF C6 H15 N



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:71535 CAPLUS
DOCUMENT NUMBER: 130:196884
TITLE: Synthesis of the glycosyl phosphatidyl inositol anchor of rat brain Thy-1
AUTHOR(S): Tailler, Denis; Ferrieres, Vincent; Pekari, Klaus; Schmidt, Richard R.
CORPORATE SOURCE: Fakultat Chemie, Universitat Konstanz, Konstanz, D-78457, Germany
SOURCE: Tetrahedron Letters (1999), 40(4), 679-682
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

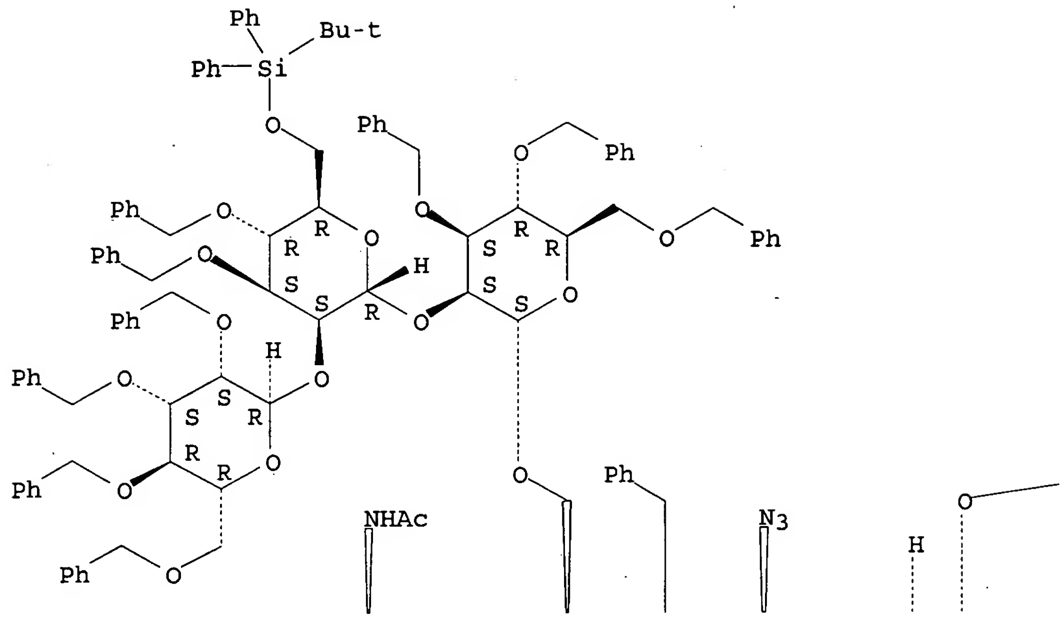
AB Disintegration of the target mol. I into building blocks A-E was performed. For D, an efficient synthesis of a mannose derivative, representing mannose residue C in the target mol., could be performed; the mannose derivative permits the required regioselective access to C-1, 2-O, 4-O, and 6-O. Reaction with a galactosamine donor led to D in high yield. E could be readily prepared from known mannosyl donors. Combination of A-E led to the fully O-benzyl protected target mol. in only eleven high-yielding steps, thus exhibiting the efficiency of this convergent strategy, which provides target mol. I.

IT 220734-66-7P 220734-78-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of the glycosyl phosphatidyl inositol anchor of rat brain Thy-1)

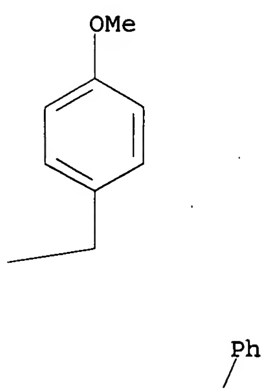
RN 220734-66-7 CAPLUS
CN D-myo-Inositol, O-2-(acetylamino)-2-deoxy-3,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1→4)-O-[O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-6-O-[(1,1-dimethylethyl)diphenylsilyl]-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)]-O-2-O-acetyl-3-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-1-O-[(4-methoxyphenyl)methyl]-2,3,4,5-tetrakis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

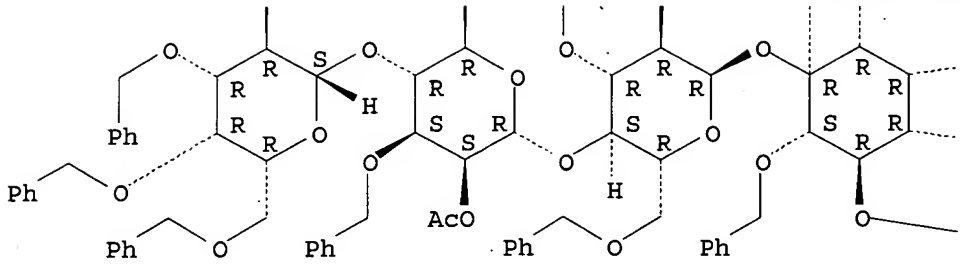
PAGE 1-A



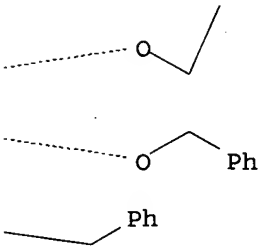
PAGE 1-B



PAGE 2-A



PAGE 2-B

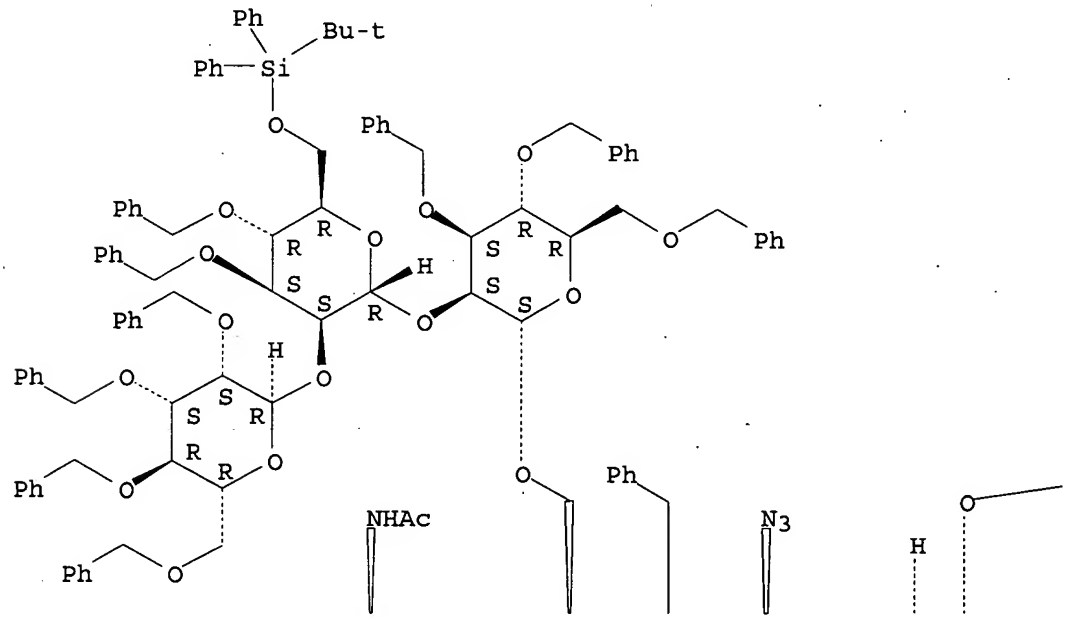


RN 220734-78-1 CAPLUS

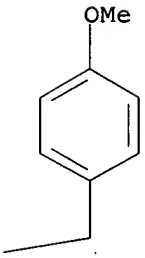
CN D-myo-Inositol, O-2-(acetylamino)-2-deoxy-3,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1→4)-O-[O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-6-O-[(1,1-dimethylethyl)diphenylsilyl]-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)]-O-3-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-1-O-[(4-methoxyphenyl)methyl]-2,3,4,5-tetrakis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

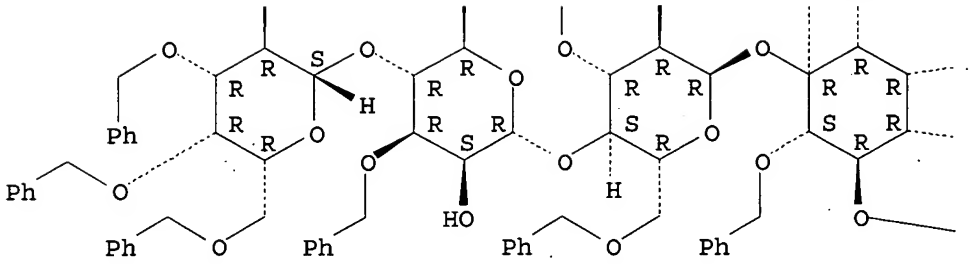
PAGE 1-A



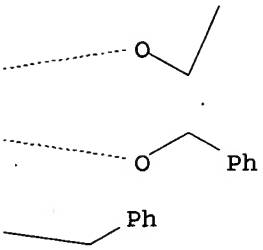
PAGE 1-B



PAGE 2-A



PAGE 2-B



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:823844 CAPLUS
DOCUMENT NUMBER: 124:56522
TITLE: First Synthesis of a Fully Phosphorylated GPI Membrane

Anchor: Rat Brain Thy-1

AUTHOR(S): Campbell, A. Stewart; Fraser-Reid, B.
CORPORATE SOURCE: Department of Chemistry, Duke University, Durham, NC, 27708, USA

SOURCE: Journal of the American Chemical Society (1995), 117(41), 10387-8
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

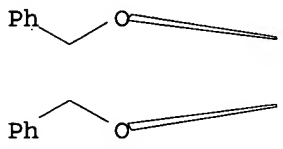
AB Procedures for installing the three phosphodiester residues of the rat brain Thy-1 glycophosphatidyl-inositol membrane anchor have been developed. A solution for the troublesome issues of compatibility at the final stages, both with respect to the sugar and phosphate precursors, has been demonstrated. It is thereby possible to introduce chemo-specifically, the three phosphodiester residues, the reactions being readily monitored by 1H and 31P NMR spectroscopy. 1H NMR spectra comparison of the isolated GPI anchor and the synthetic sample are in excellent agreement.

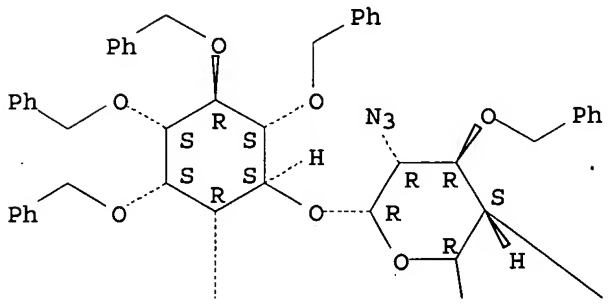
IT 150772-60-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of a fully phosphorylated glycophosphatidyl-inositol membrane anchor of rat brain Thy-1)

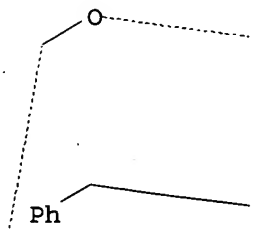
RN 150772-60-4 CAPLUS

CN D-myo-Inositol, O-2-(acetylamino)-2-deoxy-3,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1→4)-O-[O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-6-O-(chloroacetyl)-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)]-O-2-O-acetyl-3-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-2,3,4,5-tetrakis-O-(phenylmethyl)-1-O-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).







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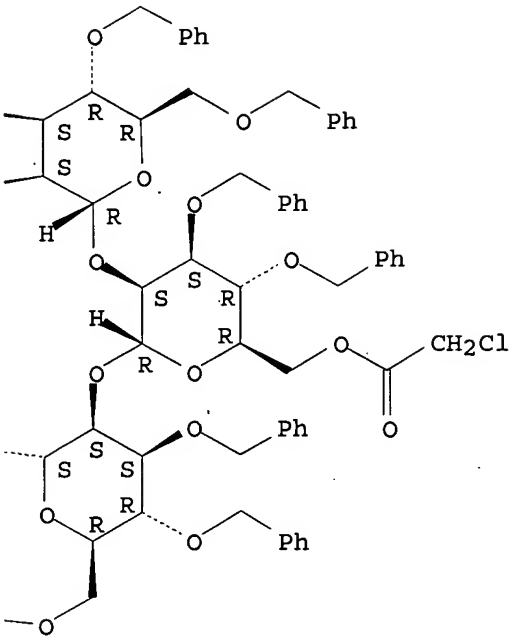
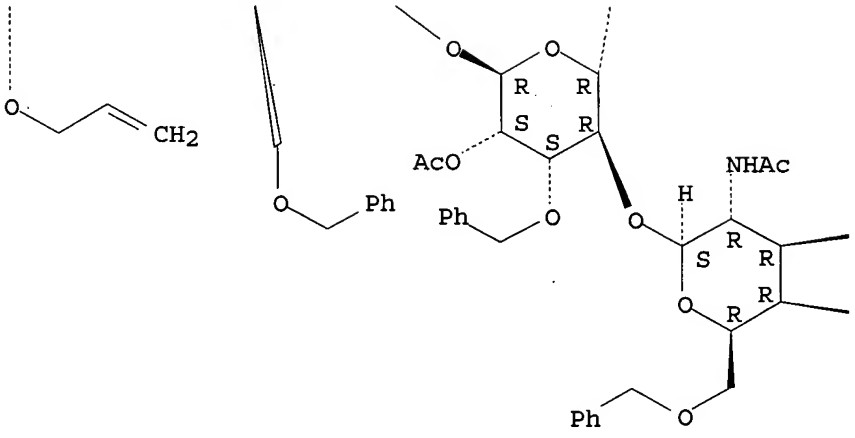


PAGE 2-A



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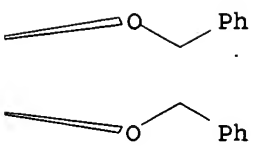


L18 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:337418 CAPLUS
DOCUMENT NUMBER: 122:314995
TITLE: Studies Related to Synthesis of Glycophosphatidylinositol Membrane-Bound Protein Anchors. 6. Convergent Assembly of Subunits
AUTHOR(S): Madsen, Robert; Udodong, Uko E.; Roberts, Carmichael; Mootoo, David R.; Konradsson, Peter; Fraser-Reid, Bert
CORPORATE SOURCE: Paul M. Gross Chemical Laboratory, Duke University, Durham, NC, 27708, USA
SOURCE: Journal of the American Chemical Society (1995), 117(5), 1554-65
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Glycophosphatidylinositol anchors of membrane-bound proteins are thought to comprise a common pentasaccharide core containing mannan, glucosamine, and inositol residues. A synthetic route to this core is described. In addition, the complete heptasaccharide I moiety of the rat brain Thy-1 membrane anchor, the first mammalian membrane anchor to be characterized, has been synthesized. In the case of the Thy-1 anchor, the synthetic plan is based on three building blocks comprising glucosamine-inositol, galactosamine-mannose, and trimannan residues. Although glycosyl donors other than n-pentenyl glycosides (NPGs) have been used in preparing each of these building blocks, the final assembly of the heptasaccharide utilizes NPGs as the only glycosyl donors. The mildness of the conditions for these coupling reactions has allowed us to make provisions for subsequent installation of the three phosphodiester units.

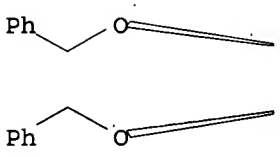
IT 150772-60-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(studies related to synthesis of glycophosphatidylinositol membrane-bound protein anchors and convergent assembly of subunits)

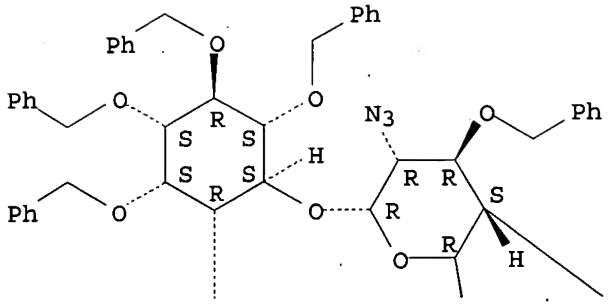
RN 150772-60-4 CAPLUS

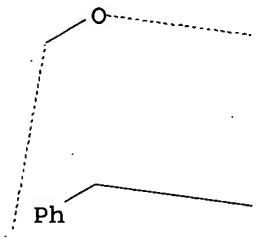
CN D-myo-Inositol, O-2-(acetylamino)-2-deoxy-3,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1→4)-O-[O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-6-O-(chloroacetyl)-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)]-O-2-O-acetyl-3-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-2,3,4,5-tetrakis-O-(phenylmethyl)-1-O-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A







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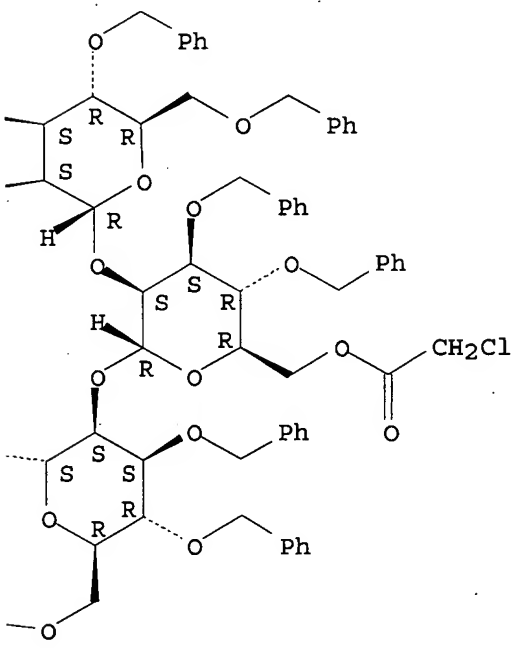

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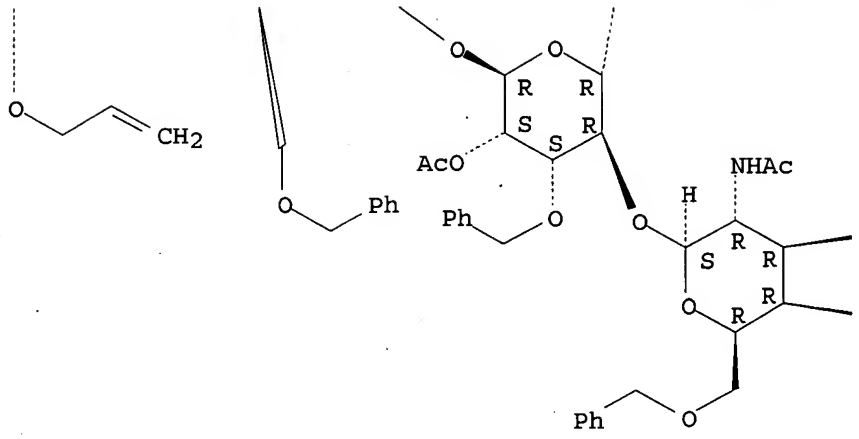

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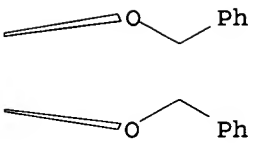


L18 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:626278 CAPLUS
DOCUMENT NUMBER: 119:226278
TITLE: A ready, convergent synthesis of the heptasaccharide GPI membrane anchor of rat brain Thy-1 glycoprotein
AUTHOR(S): Udodong, Uko E.; Madsen, Robert; Roberts, Carmichael; Fraser-Reid, Bert
CORPORATE SOURCE: Dep. Chem., Duke Univ., Durham, NC, 27708, USA
SOURCE: Journal of the American Chemical Society (1993), 115(17), 7886-7
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:226278
GI

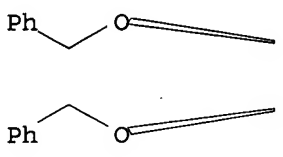
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

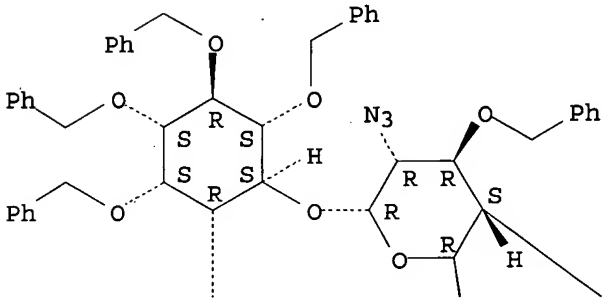
AB The first synthesis of the complete glycan moiety I of Thy-1 by a convergent route is described. This route provides the material in multigram amts. and makes provisions for attaching the protein components.
IT 150772-60-4P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(convergent total synthesis of)
RN 150772-60-4 CAPLUS

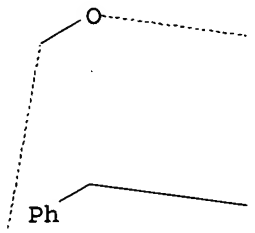
CN D-myo-Inositol, O-2-(acetylamino)-2-deoxy-3,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1→4)-O-[O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-6-O-(chloroacetyl)-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)]-O-2-O-acetyl-3-O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-2-azido-2-deoxy-3,6-bis-O-(phenylmethyl)-α-D-glucopyranosyl-(1→6)-2,3,4,5-tetrakis-O-(phenylmethyl)-1-O-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A







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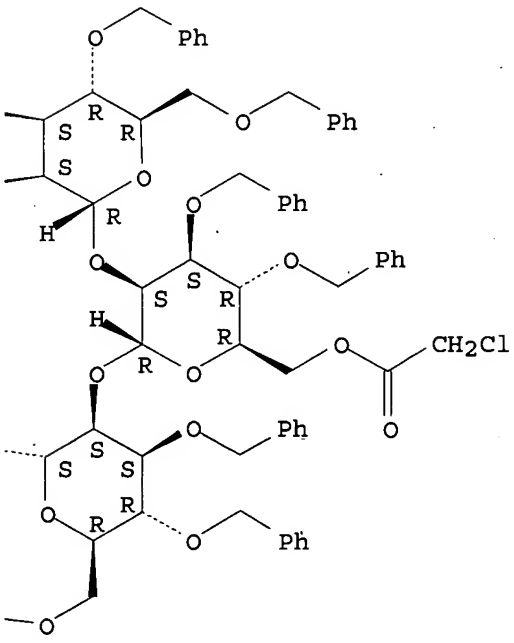

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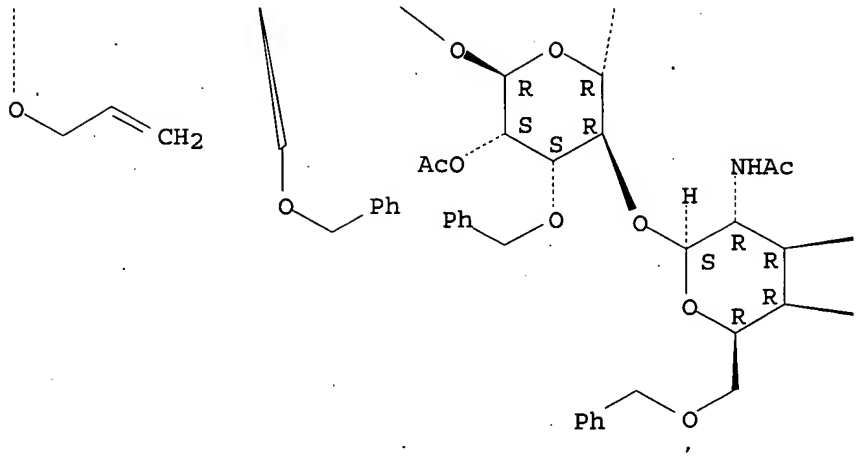

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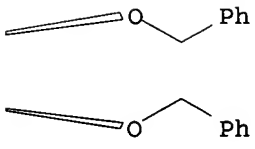


L21 ANSWER 20 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:455530 CAPLUS
DOCUMENT NUMBER: 139:197678
TITLE: First syntheses of D-mannose penta- and decasaccharides, the repeating unit and its dimer of the cell-wall mannan of candida kefyr IFO 0586
AUTHOR(S): Xing, Ying; Ning, Jun
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Tetrahedron: Asymmetry (2003), 14(10), 1275-1283
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:197678

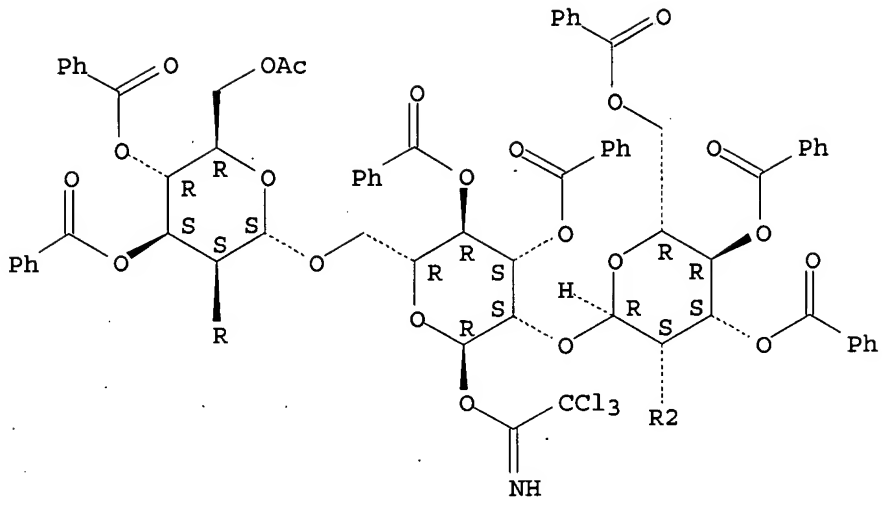
AB α-D-Mannopyranosyl-(1→2)-α-D-mannopyranosyl-(1→6)-[α-D-mannopyranosyl-(1→2)-α-D-mannopyranosyl-(1→2)]-α-D-mannopyranose and α-D-mannopyranosyl-(1→2)-α-D-mannopyranosyl-(1→6)-[α-D-mannopyranosyl-(1→2)-α-D-mannopyranosyl-(1→2)]-α-D-mannopyranosyl-(1→6)-[α-D-mannopyranosyl-(1→2)]-α-D-mannopyranosyl-(1→6)-[α-D-mannopyranosyl-(1→2)-α-D-mannopyranosyl-(1→2)]-α-D-mannopyranose, the repeating unit and its dimer of the cell wall mannan of the pathogenic yeast Candida kefyr IFO 0586, have been efficiently synthesized via their allyl glycosides by using allyl 3,4,6-tri-O-benzoyl-α-D-mannopyranoside, allyl 6-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranoside, and allyl 3,4-di-O-benzoyl-α-D-mannopyranoside as synthons. The blocked pentasaccharide was regio- and stereoselectively prepared by coupling of allyl 3,4-di-O-benzoyl-α-D-mannopyranoside with 2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-6-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate, and then with 2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate in a one-pot manner.

IT 583043-18-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of penta- and deca-mannosaccharides present in the cell-wall mannan of candida kefyr IFO 0586 via regio- and stereoselective glycosylation)

RN 583043-18-9 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-6-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)]-, 3,4-dibenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



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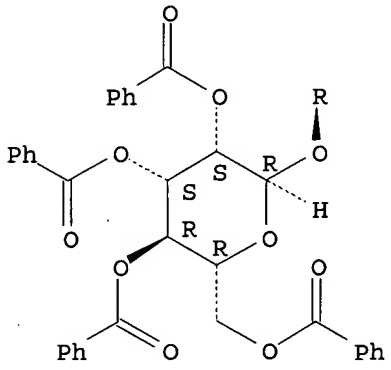

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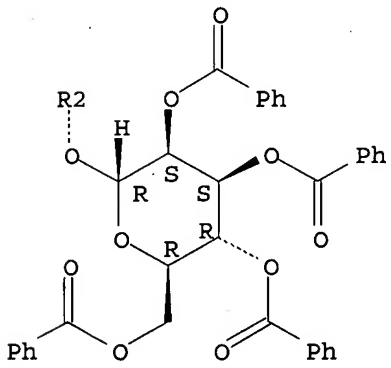


REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 21 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:759322 CAPLUS
DOCUMENT NUMBER: 140:375420
TITLE: Synthesis of mannononaose of sugar chain of AIDs-related glycoprotein
INVENTOR(S): Kong, Fanzuo; Zhu, Yuliang
PATENT ASSIGNEE(S): Eco-Environmental Research Center, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1381504	A	20021127	CN 2001-110763	20010420

PRIORITY APPLN. INFO.: CN 2001-110763 20010420
OTHER SOURCE(S): CASREACT 140:375420

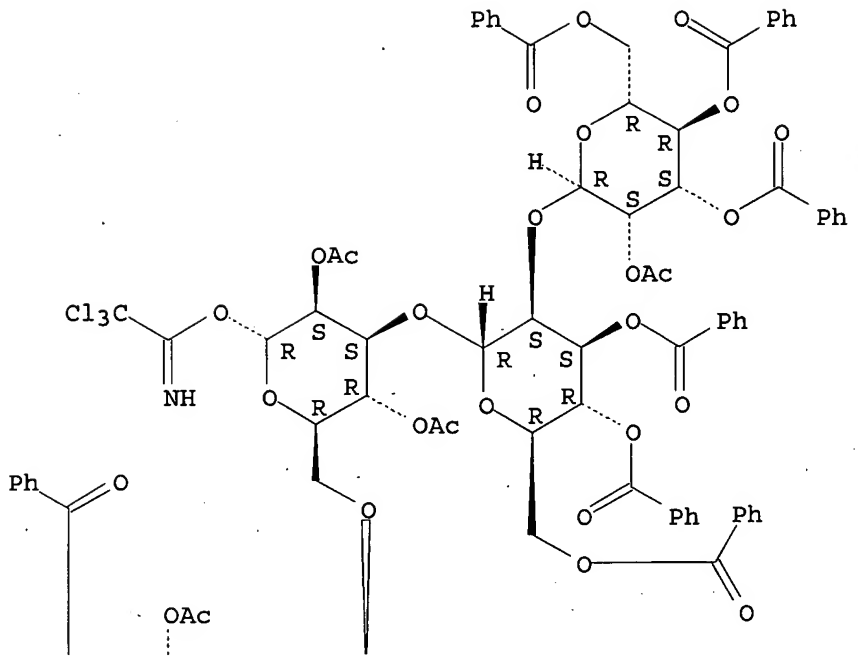
AB The mannononaose, α-D-mannopyranosyl-(1->2)-α-D-mannopyranosyl-(1->2)-α-D-mannopyranosyl-(1-3>)-{α-D-mannopyranosyl-(1->2)-α-D-mannopyranosyl-(1->3)-[α-D-mannopyranosyl-(1->2)-α-D-mannopyranosyl-(1->6)]-α-D-mannopyranosyl-(1->6)}-α-D-mannopyranose, as the sugar chain of AIDs-related glycoprotein, is synthesized. Reacting 1-bromo-1-deoxy-2,3,4,6-tetra-O-acetyl-β-D-mannopyranose with allyl alc. in 2,4-dimethylpyridine, hydrolyzing, acylating with benzoyl chloride in pyridine for 3 h, coupling in the presence of trimethylsilyl trifluoromethanesulfonate (TMSOTf) or BF3 to obtain allyl 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-3,4,6-tri-O-benzoyl-α-D-mannopyranoside (I). Hydrogenolyzing I, activating with trichloroacetonitrile to obtain 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl 2,2,2-trichloroethanimidate (II), coupling II with 1,2-O-ethylidene-β-D-mannopyranose (as receptor) in the presence of TMSOTf or BF3 to obtain O-benzoyl-protected-1,2-O-ethylidene-mannopentaose; activating with trichloroacetonitrile to obtain mannopentaose donor (III). Selectively hydrolyzing I to remove acetyl group, coupling with 2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl 2,2,2-trichloroethanimidate to obtain triose, hydrogenolyzing, activating with trichloroacetonitrile to obtain triose donor (IV); coupling IV with allyl 4,6-O-benzylidene-α-D-mannopyranoside to obtain tetraose receptor (V); coupling V with III, and then hydrolyzing to remove protective groups.

IT 369641-57-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of mannononaose of sugar chain of AIDs-related glycoprotein)

RN 369641-57-6 CAPLUS
CN α-D-Mannopyranose, O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



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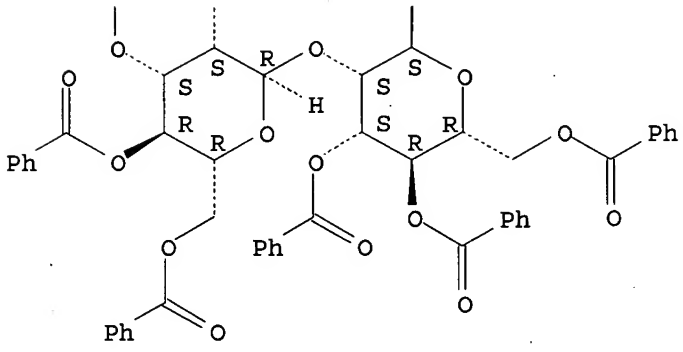


L21 ANSWER 22 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:759321 CAPLUS
DOCUMENT NUMBER: 140:375419
TITLE: Simple synthesis of mannooctaose of the sugar chain of human CD2
INVENTOR(S): Kong, Fanzuo; Zhu, Yuliang
PATENT ASSIGNEE(S): Eco-Environmental Research Center, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1381503	A	20021127	CN 2001-110762	20010420

PRIORITY APPLN. INFO.: CN 2001-110762 20010420
OTHER SOURCE(S): CASREACT 140:375419

AB The mannooctaose, α--D-mannopyranosyl-(1->2)-α-D-mannopyranosyl-(1->3)-{α-D-mannopyranosyl-(1->2)-α-D-mannopyranosyl-(1->3)-[α-D-mannopyranosyl-(1->2)-α-D-mannopyranosyl-(1->6)]-α-D-mannopyranosyl-(1->6)}-α-D-mannopyranose, as the sugar chain of human CD2, is synthesized. Reacting 1-bromo-1-deoxy-2,3,4,6-tetra-O-acetyl-β-D-mannopyranose with allyl alc. in 2,4-dimethylpyridine, hydrolyzing, acylating with benzoyl chloride in pyridine for 3 h, coupling in the presence of trimethylsilyl trifluoromethanesulfonate (TMSOTf) or BF3, hydrogenating, activating with trichloroacetonitrile to obtain 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1->2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl 2,2,2-trichloroethanimidate (I). Coupling donor I with 1,2-O-ethylidene-β-D-mannopyranose (II) as receptor in the presence of TMSOTf or BF3 to obtain O-benzoyl protected-1,2-O-ethylidene-mannopentaose; activating with trichloroacetonitrile to obtain mannopentaose donor (III). Coupling receptor II with allyl 4,6-O-benzylidene-α-D-mannopyranoside, selectively hydrolyzing to obtain mannotriose receptor (IV); coupling receptor IV with donor III, and then hydrolyzing to remove protective groups.

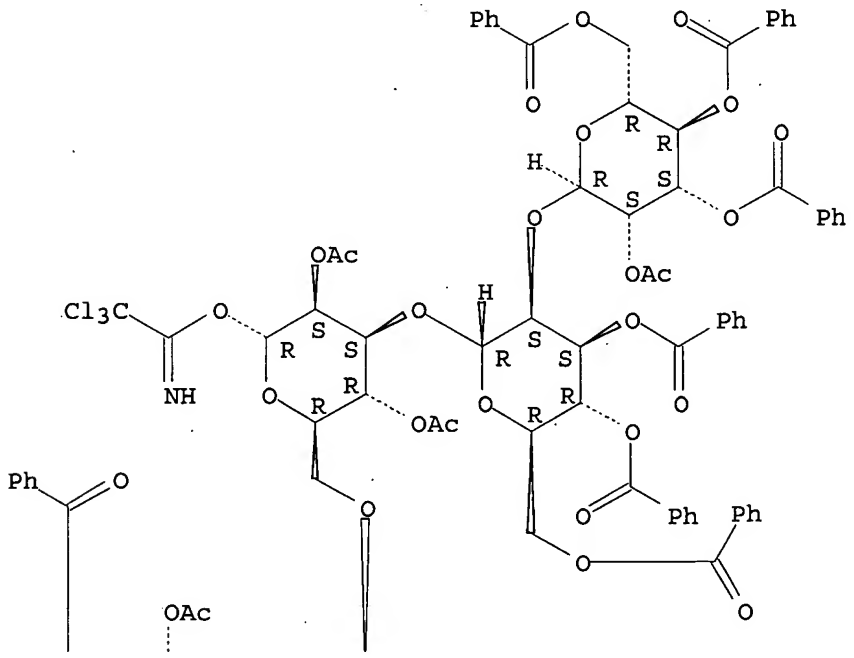
IT 369641-57-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of mannooctaose of the sugar chain of human CD2)

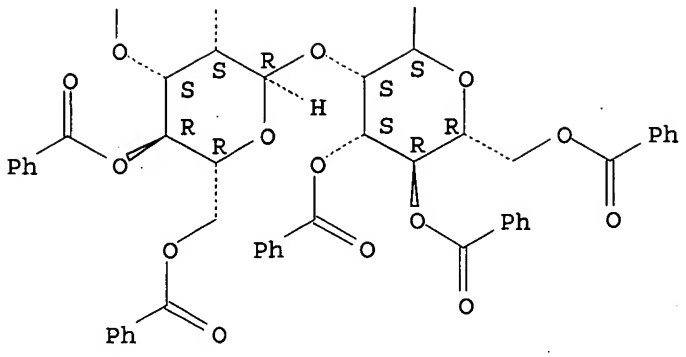
RN 369641-57-6 CAPLUS

CN α-D-Mannopyranose, O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A





L21 ANSWER 23 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:270018 CAPLUS
DOCUMENT NUMBER: 138:255452
TITLE: Preparation of mannosan antigen factor 4 and mannosan antigen factor 6
INVENTOR(S): Kong, Fanzuo; Zhu, Yuliang
PATENT ASSIGNEE(S): Ecological Environment Research Center, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1336378	A	20020220	CN 2000-120950	20000802

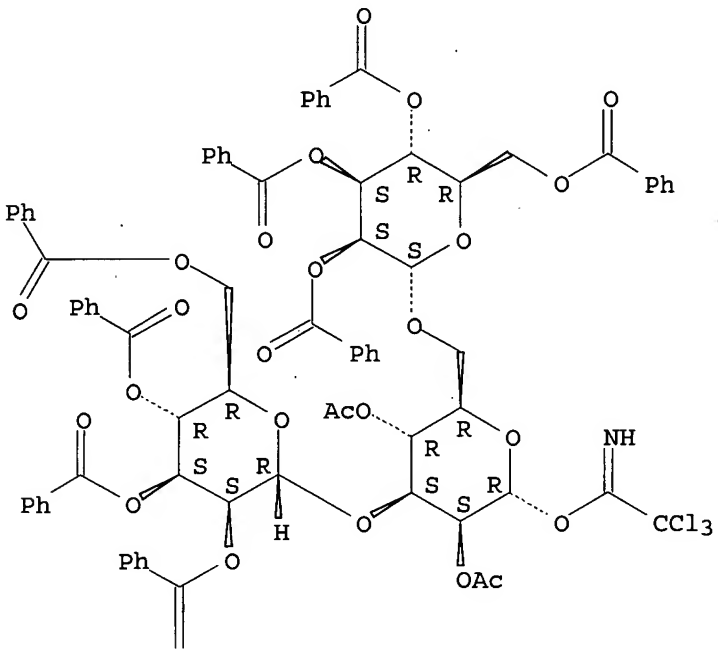
PRIORITY APPLN. INFO.: CN 2000-120950 20000802
OTHER SOURCE(S): CASREACT 138:255452; MARPAT 138:255452

AB The method comprises esterifying tetra-O-acetyl-α-D-mannopyranosyl bromide with allyl alc. in the presence of 2,4-dimethylpyridine to obtain 1,2-O-(1-allyloxyethylidene)-3,4,6-tri-O-acetyl-α-D-mannopyranose, hydrolyzing with NaOMe in MeOH and acylating with BzCl to obtain 1,2-O-(1-allyloxyethylidene)-3,4,6-tri-O-benzoyl-α-D-mannopyranose; self-coupling in the presence of TMSOTf or TESOTf to obtain allyl 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1->2)-3,4,6-tribenzoyl-α-D-mannopyranoside (I). Deallylating I with NaOAc in HOAc in the presence of PdCl2 and esterifying with Cl3CCN to obtain 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1->2)-3,4,6-tribenzoyl-α-D-mannopyranosyl 2,2,2-trichloroethanimidate as diose donor; hydrolyzing I to obtain allyl 3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1->2)-3,4,6-tribenzoyl-α-D-mannopyranoside (II) as diose receptor; coupling the diose donor and diose receptor to obtain allyl 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1->2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1->2)-3,4,6-O-benzoyl-α-D-mannopyranoside (III); coupling II with mannose donor 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl trichloroethanimidate to obtain triose (IV);. Preparing triose receptor and tetrose receptor from IV and III by the above method, resp.; coupling tetrose receptor with diose donor {2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1->3)-2,4,6-tri-O-acetyl-α-D-mannopyranosyl trichloroethanimidate} and hydrogenating to remove benzoyl protective groups to obtain mannosan antigen factor 6; and coupling triose receptor with triose donor {2,3,4,6-tetra-O-benzoyl-alpha-D-mannopyranosyl-(1->3)-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1->6)]-2,4-di-O-acetyl-α-D-mannopyranosyl trichloroethanimidate} and hydrogenating to remove benzoyl protective groups to obtain mannosan antigen factor 4.

IT 324041-38-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn.of mannosan antigen factor 4 and mannosan antigen factor 6)
RN 324041-38-5 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

L21 ANSWER 24 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:803349 CAPLUS
DOCUMENT NUMBER: 138:39485
TITLE: Rapid synthesis of a glycosylphosphatidylinositol-based malaria vaccine using automated solid-phase oligosaccharide synthesis
AUTHOR(S): Hewitt, Michael C.; Snyder, Daniel A.; Seeberger, Peter H.
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Journal of the American Chemical Society (2002), 124(45), 13434-13436
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:39485

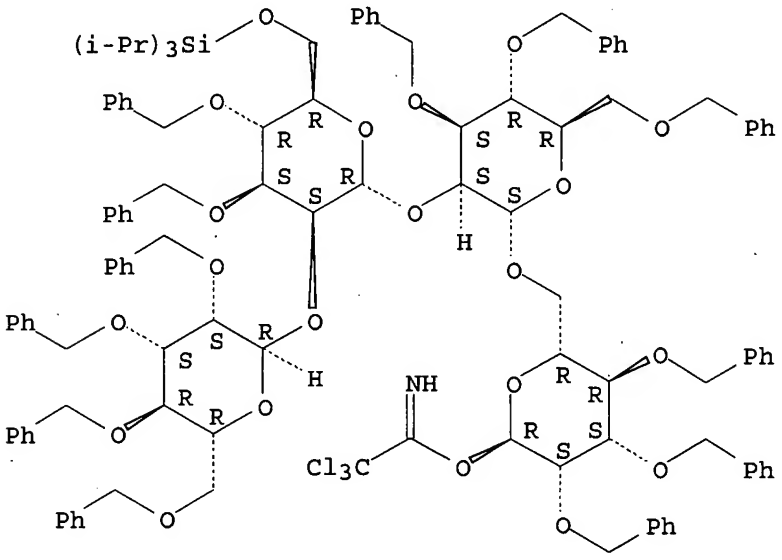
AB Described is an automated synthesis of hexasaccharide malarial toxin, currently under development as a malaria vaccine candidate. Using a combination of automated solid-phase methods and solution-phase fragment coupling, the target glycosylphosphatidylinositol was assembled in a matter of days, compared with several weeks for a comparable solution-phase synthesis.

IT 478065-49-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(automated solid phase synthesis of glycosylphosphatidylinositol to develop into malaria vaccine candidate)

RN 478065-49-5 CAPLUS

CN α-D-Mannopyranose, O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4-bis-O-(phenylmethyl)-6-O-[tris(1-methylethyl)silyl]-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-2,3,4-tris-O-(phenylmethyl)-, 2,2,2-trichloroethanimidate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 25 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:509872 CAPLUS

DOCUMENT NUMBER: 137:370289

TITLE: A highly efficient synthesis of an octasaccharide, the repeating unit of the cell-wall mannan of Trichophyton mentagrophytes and T. rubrum

AUTHOR(S): Ning, Jun; Heng, Linsen; Kong, Fanzuo

CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China

SOURCE: Carbohydrate Research (2002), 337(13), 1159-1164
CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:370289

AB A highly concise and effective synthesis of the mannose octasaccharide repeating unit of the cell-wall mannan of Trichophyton mentagrophytes and

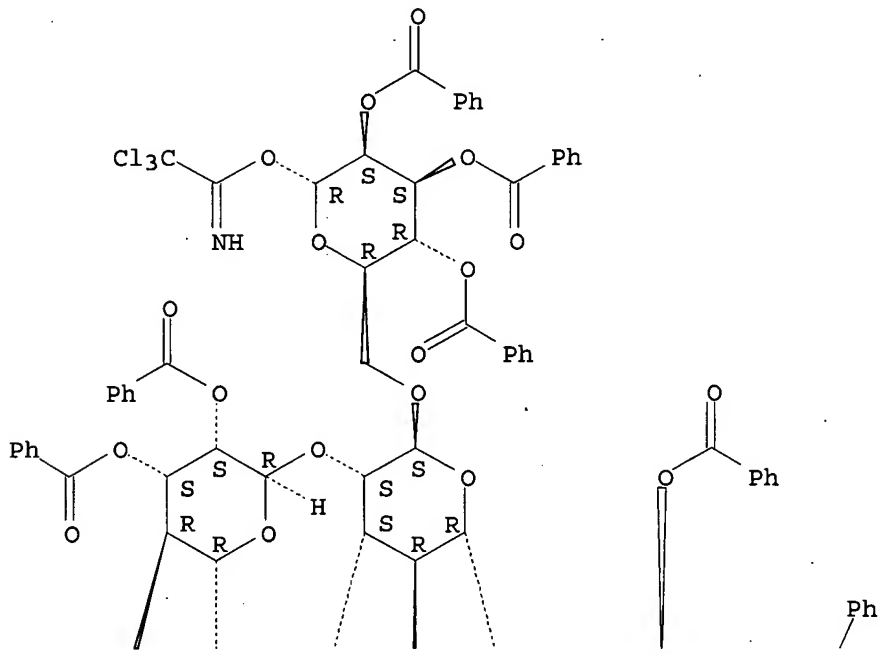
T. rubrum was achieved via 6-O-glycosylation of a tetrasaccharide acceptor with a tetrasaccharide donor, followed by deprotection. The key tetrasaccharide was constructed by selective 6-O-glycosylation of allyl 3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranoside with 6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate, then with 2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate. The tetrasaccharide acceptor was obtained by selective 6-O-deacetylation of the key tetrasaccharide, while the tetrasaccharide.donor was obtained by deallylation, followed by trichloroacetimidation.

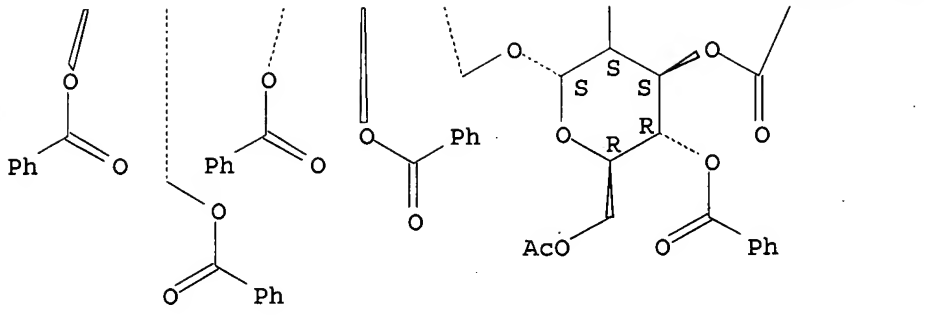
IT 474959-43-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(highly efficient synthesis of an octasaccharide repeating unit of cell-wall mannan of T. mentagrophytes and T. rubrum via regio- and stereoselective glycosylation)

RN 474959-43-8 CAPLUS

CN α-D-Mannopyranose, O-6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)]-O-3,4-di-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).





REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

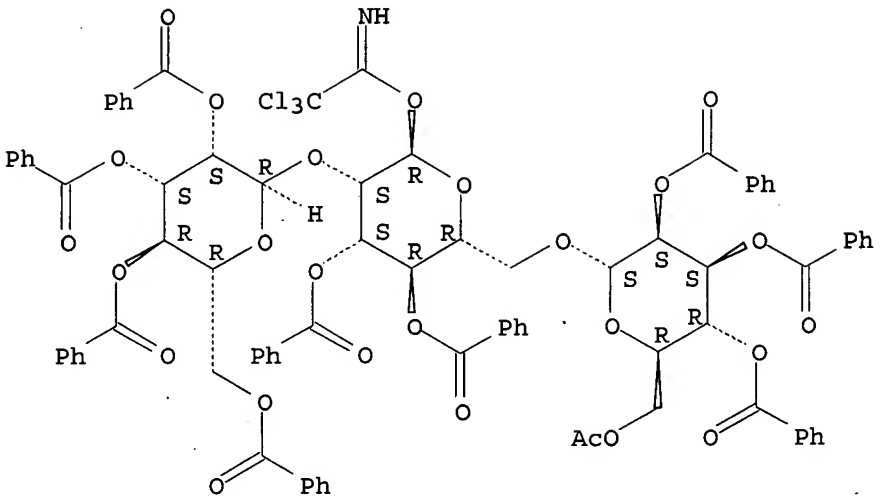
L21 ANSWER 26 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:20862 CAPLUS
DOCUMENT NUMBER: 136:325756
TITLE: Facile syntheses of D-mannose hexa- and nonasaccharides: the di- and trimer of the trisaccharide repeating unit of the cell-wall mannans of Epidermophyton floccosum, Trichophyton mentagrophytes, Microsporum canis and related species of Microsporum
AUTHOR(S): Ning, Jun; Heng, Linsen; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, Beijing, 100085, Peop. Rep. China
SOURCE: Tetrahedron Letters (2002), 43(4), 673-675
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:325756

AB A highly efficient strategy for the preparation of D-mannose hexa- and nonasaccharides, the dimer and trimer of the α-D-Manp-(1→6)-[α-D-Manp-(1→2)-]D-Manp trisaccharide repeating unit of the cell-wall mannans from the fungi Epidermophyton floccosum, Trichophyton mentagrophytes, Microsporum canis, M. cookei and M. racemosum, has been developed using 1,2,6-tri-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranose as the key synthon.

IT 414878-13-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(facile syntheses of D-mannose hexa- and nonasaccharides, the di- and trimer of the trisaccharide repeating unit of the cell-wall mannans of many fungi)

RN 414878-13-0 CAPLUS
CN α-D-Mannopyranose, O-6-O-acetyl-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)]-, 3,4-dibenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

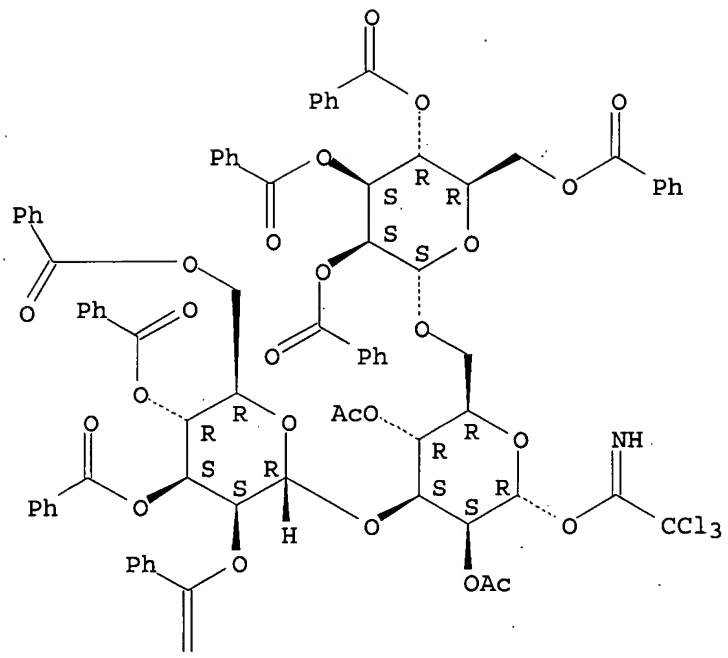
L21 ANSWER 27 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:252135 CAPLUS
DOCUMENT NUMBER: 137:155116
TITLE: Efficient and Practical Syntheses of Mannose Tri-, Tetra-, Penta-, Hexa-, Hepta-, and Octasaccharides Existing in N-glycans
AUTHOR(S): Zhang, Jianjun; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Tetrahedron: Asymmetry (2002), 13(3), 243-252
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:155116

AB An efficient and practical regio- and stereoselective synthesis of mannose tri-, tetra-, penta-, hexa-, hepta-, and octasaccharides of N-glycans was achieved using simple mannosyl derivs. as the starting materials.

IT 324041-38-5P 444710-03-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of branched mannose containing oligosaccharides via regioselective and stereoselective glycosylations of mannose synthons)

RN 324041-38-5 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

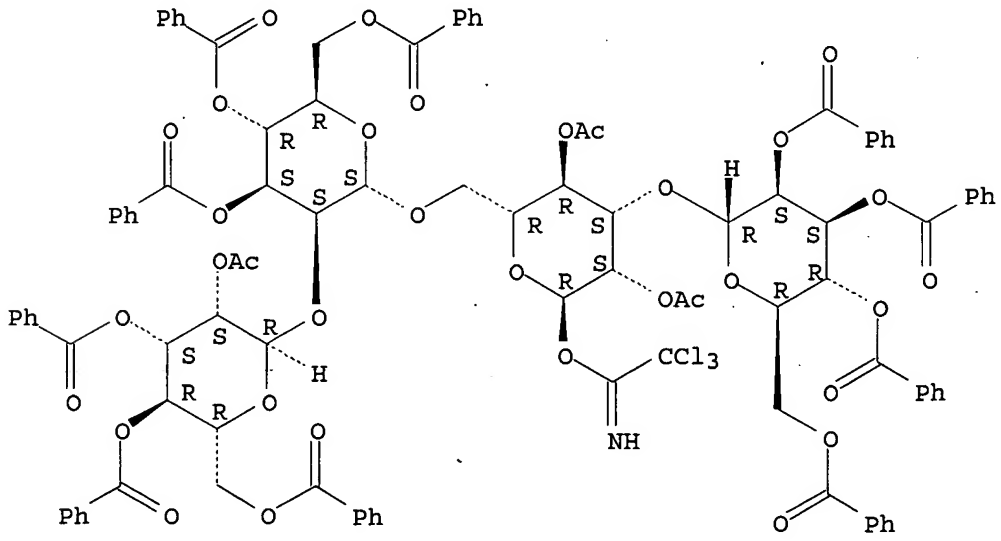
Absolute stereochemistry. Rotation (-).



RN 444710-03-6 CAPLUS

CN α-D-Mannopyranose, O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→3)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 28 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:117006 CAPLUS
DOCUMENT NUMBER: 136:386307
TITLE: A facile regio- and stereoselective synthesis of mannose octasaccharide of the N-glycan in human CD2 and mannose hexasaccharide antigenic factor 13b
AUTHOR(S): Zhu, Yuliang; Chen, Langqiu; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, Beijing, 100085, Peop. Rep. China
SOURCE: Carbohydrate Research (2002), 337(3), 207-215
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:386307

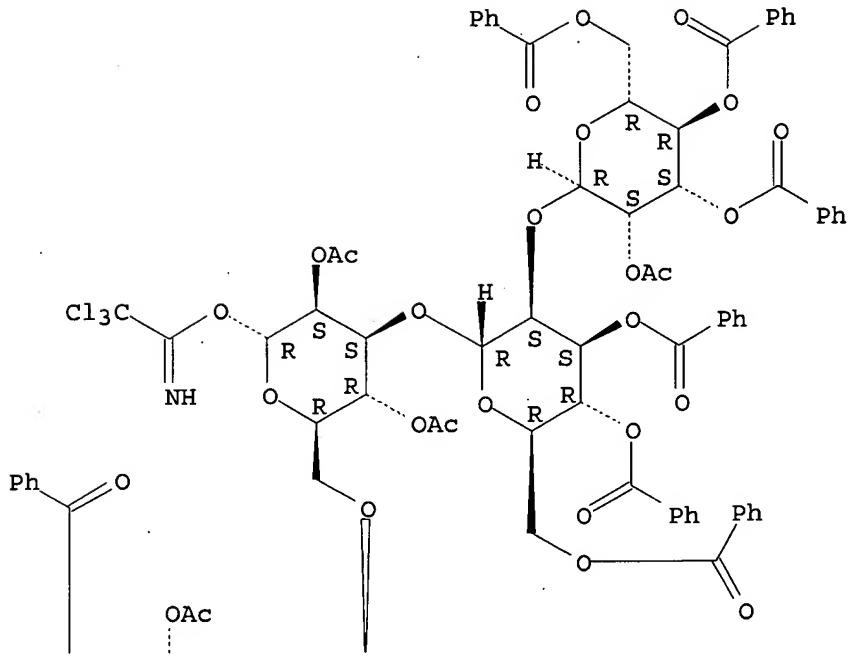
AB A highly concise and effective synthesis of the mannose octasaccharide of the N-linked glycan in the adhesion domain of human CD2 was achieved via TMSOTf-promoted selective 6-glycosylation of a trisaccharide 4,6-diol acceptor with a pentasaccharide donor, followed by deprotection. The pentasaccharide was constructed by selective 3,6-diglycosylation of 1,2-O-ethylidene-β-D-mannopyranose with 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate, while the trisaccharide was obtained by selective 3-O-glycosylation of allyl 4,6-O-benzylidene-α-D-mannopyranoside with the same disaccharide trichloroacetimidate, followed by debenzylidenation. The mannose hexasaccharide antigenic factor 13b was synthesized by condensation of a trisaccharide donor, 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→3)-4,6-di-O-acetyl-2-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate, with a trisaccharide acceptor, Me 3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranoside, followed by deprotection.

IT 369641-57-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(facile regio- and stereoselective synthesis of mannose octasaccharide of the N-glycan in human CD2 and mannose hexasaccharide antigenic factor 13b)

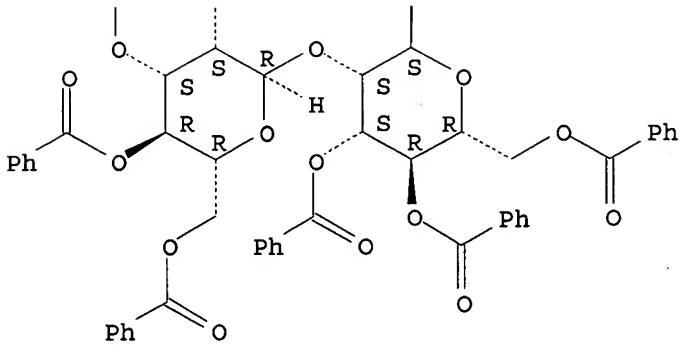
RN 369641-57-6 CAPLUS
CN α-D-Mannopyranose, O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 20 · THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 29 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:85720 CAPLUS
DOCUMENT NUMBER: 136:369912
TITLE: Facile large scale synthesis of the core mannose pentasaccharide of N-linked glycoprotein and its isomer
AUTHOR(S): Zhang, Jian-Jun; Kong, Fan-Zuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Huaxue Xuebao (2002), 60(1), 150-156
CODEN: HHHPA4; ISSN: 0567-7351
PUBLISHER: Kexue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:369912

AB Condensation with 1,2-O-ethylidene-4,6-O-benzylidene-β-D-mannopyranose as the acceptor and 2,3,4,6-tetra-O-benzoyl-β-D-mannopyranosyl trichloroacetimidate as the donor gave 3-O-linked disaccharide, subsequent debenzylidenation afforded the free disaccharide acceptor. Coupling of above disaccharide acceptor with 2,3,4,6-tetra-O-benzoyl-β-D-mannopyranosyl trichloroacetimidate selectively furnished 6-O-linked trisaccharide, then deethylidenation, acetylation, selective 1-O-deacetylation, and trichloroacetimidation yielded the trisaccharide donor. Condensation of trisaccharide donor with disaccharide acceptor afforded 6-O-linked pentasaccharide, its deethylidenation followed by acetylation gave the required pentasaccharide. Coupling of trisaccharide donor with 1,2-O-ethylidene-4,6-O-benzylidene-β-D-mannopyranose gave the tetrasaccharide, its debenzylidenation afforded the tetrasaccharide acceptor. Condensation of tetrasaccharide acceptor with 2,3,4,6-tetra-O-benzoyl-β-D-mannopyranosyl trichloroacetimidate gave the pentasaccharide isomer.

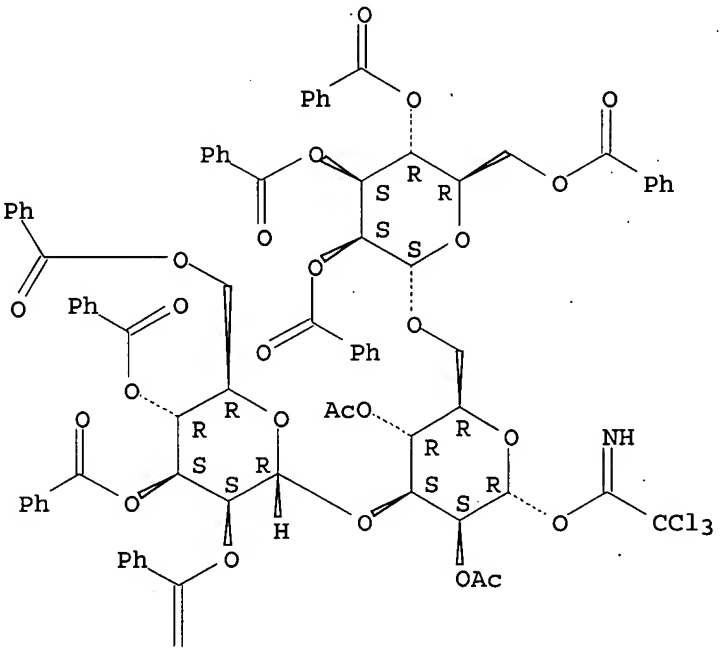
IT 324041-38-5P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(facile large scale synthesis of core mannose pentasaccharide)

RN 324041-38-5 CAPLUS

CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 30 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:833332 CAPLUS
DOCUMENT NUMBER: 135:358108
TITLE: Preparation of inositol phosphoglycans as antidiabetics and IPG antagonists
INVENTOR(S): Rademacher, Thomas William; Caro, Hugo Norberto; Francois, Irene; Martin-Lomas, Manuel
PATENT ASSIGNEE(S): Rademacher Group Limited, UK
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085745	A1	20011115	WO 2001-GB2098	20010511
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2001041677	A1	20011115	US 2001-798004	20010302
US 6716826	B2	20040406		
CA 2433857	AA	20011115	CA 2001-2433857	20010511
EP 1409498	A1	20040421	EP 2001-928115	20010511
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.:

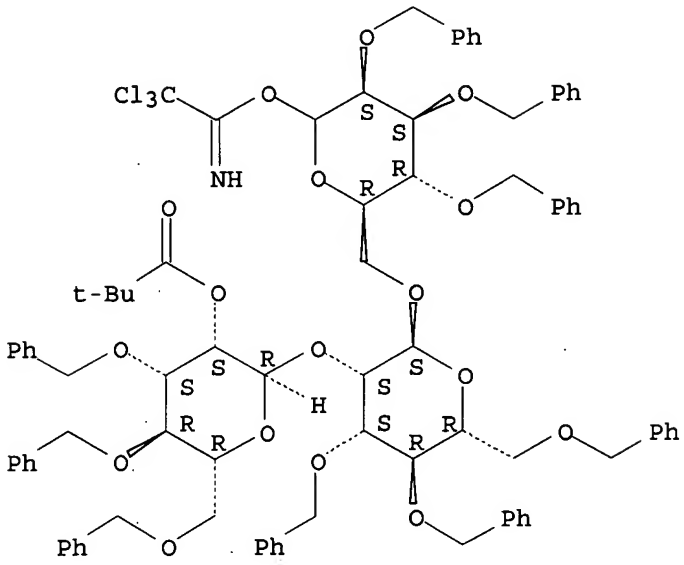
GB 2000-11593	A	20000512
US 2000-203598P	P	20000512
US 2001-798004	A	20010302
WO 2001-GB2098	W	20010511

AB Compds. having a mimetic or antagonistic property of an inositol phosphoglycan Y-X-cyclitols wherein X and Y are sugar residue, cyclitol is substituted with phosphate, thiophosphate, phosphate ester, phosphonate, thiophosphate ester, thiophosphonate, phosphoramidite, phosphoramidate, cyclic phosphate, sulfur group, substituted hydroxyl group, halogen, and the uses of these compds. are disclosed, together with the use, e.g. to treat a condition ameliorated by administration of an IPG second messenger or an IPG antagonist thereof. Preferred compds. of the invention are based on the substituted cyclitols, and in particular, the compds. are based on the linkage of two or more sugar residues to a cyclitol. Effect of these compds. on the activity of PDH phosphatase, PDH kinase, and acetyl CoA carboxylase I is reported. Thus, O-α-D-galactopyranosyl-(1-4)-(2-amino-2-deoxy-α-D-glucopyranosyl)-(1-6)-D-myo-inositol was prepared and tested as antidiabetics and IPG antagonist.

IT 371962-56-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of inositol phosphoglycans as antidiabetics and IPG antagonists)

RN 371962-56-0 CAPLUS
CN D-Mannopyranose, O-2-O-(2,2-dimethyl-1-oxopropyl)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-2,3,4-tris-O-(phenylmethyl)-, 2,2,2-trichloroethanimidate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 31 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:123467 CAPLUS
DOCUMENT NUMBER: 138:137517
TITLE: One-pot three-step synthesis of 6-O-trityl-3(or 2)-O-silyl monoglycoside and its application
INVENTOR(S): Du, Yuguo; Zhang, Meimei; Kong, Fanzuo
PATENT ASSIGNEE(S): Ecological Environment Research Center, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 14 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1324801	A	20011205	CN 2000-107723	20000524

PRIORITY APPLN. INFO.: CN 2000-107723 20000524
OTHER SOURCE(S): CASREACT 138:137517

AB Title compds. are synthesized by selectively silylating 6-O-trityl-glycoside and then acylating. The synthetic glycosides may be used to prepare pentasaccharide (having biol. activity) by desilylating, connecting with a Schmidt reagent of mannitose to obtain diose, detritylating to obtain diose receptor, and connecting with Schmidt of mannotriose; or by desilylating and detritylating simultaneously, and connecting with Schmidt reagent of diose.

IT 314038-24-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(one-pot three-step synthesis of 6-O-trityl-3(or 2)-O-silyl monoglycoside and its application)
RN 314038-24-9 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-dibenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

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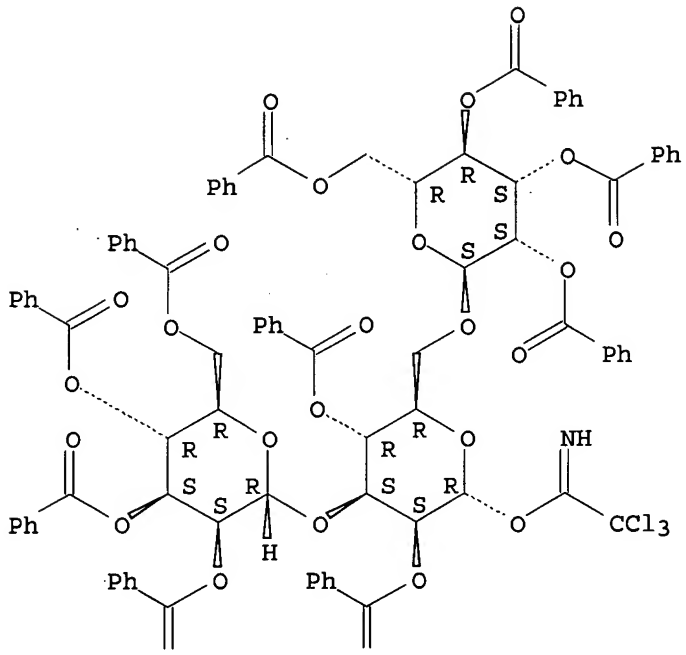


PAGE 2-A

L21 ANSWER 32 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:826696 CAPLUS
DOCUMENT NUMBER: 137:295188
TITLE: Process for preparing disaccharide of mannose and glucose with 1-2 linked and 1,2-trans-glycosidic bond
INVENTOR(S): Kong, Fanzuo; Zhu, Yuliang
PATENT ASSIGNEE(S): Ecological Environment Research Center, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1309130	A	20010822	CN 2000-100842	20000217

PRIORITY APPLN. INFO.: CN 2000-100842 20000217
OTHER SOURCE(S): CASREACT 137:295188

AB The disaccharide of mannose or glucose with 1-2 linked and 1,2-trans-glycosidic bond is synthesized by rearrangement reaction of benzoylated mannose or glucose with alkyl orthoformate (alkyl = allyl, Me, Et, Bu, octyl, or arylalkyl) of mannose or glucose in the presence of Lewis acid catalyst (such as heavy metal salt, BF3, or trimethylsilyl trifluoromethanesulfonate). Oligosaccharide may be synthesized from the

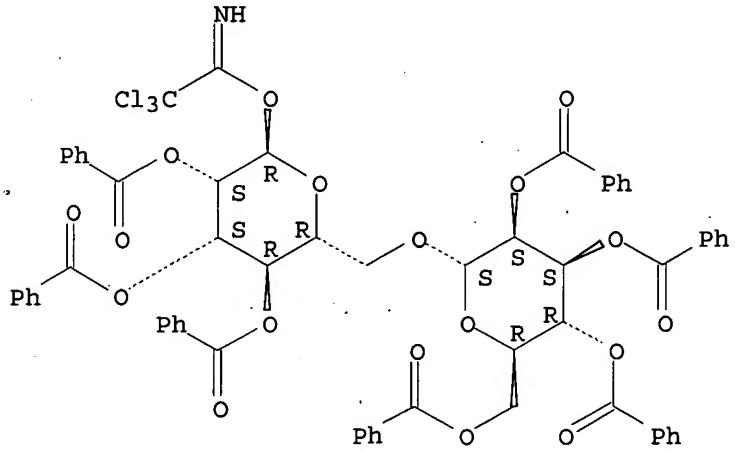
deacetylated disaccharide or other saccharide receptor and de-allylated disaccharide or other saccharide donor by coupling reaction.

IT 468729-86-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn.of disaccharide of mannose and glucose with 1-2 linked and 1,2-trans-glycosidic bond)

RN 468729-86-4 CAPLUS

CN α-D-Mannopyranose, 6-O-(2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L21 ANSWER 33 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:159364 CAPLUS
DOCUMENT NUMBER: 136:184052
TITLE: Preparation method of pyran-oligosaccharide with 1-6 connection and 1,2-trans glycosidic bond
INVENTOR(S): Kong, Fanzuo; Zhu, Yuliang
PATENT ASSIGNEE(S): Ecological Environment Research Center, Academia Sinica, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1297892	A	20010606	CN 1999-125114	19991125

PRIORITY APPLN. INFO.: CN 1999-125114 19991125
OTHER SOURCE(S): CASREACT 136:184052; MARPAT 136:184052

AB The process comprises coupling 1-O-R-monosaccharide receptor with 1-deoxy-1-X-2,3,4,6-tetra-O-acetyl-monosaccharide donor (X = Br, Cl, or OC(NH)CCl3; and R = Me, Et, allyl, butenyl, or benzyl) in organic solvent in the presence of Lewis acid to obtain disaccharide (I) with 1->6 linkage and 1,2-trans-glycosidic bond; acylating disaccharide (I) with benzoyl chloride or acetyl chloride and activating the reductive end to obtain disaccharide donor; acylating disaccharide (I) with benzoyl chloride and hydrolyzing to selectively remove acetyl and obtain disaccharide receptor; coupling monosaccharide donor or disaccharide donor with disaccharide receptor to obtain trisaccharide or tetrasaccharide; and removing protective groups to obtain free oligosaccharides. Other oligosaccharides may be synthesized by the above method. The monosaccharide is glucose,

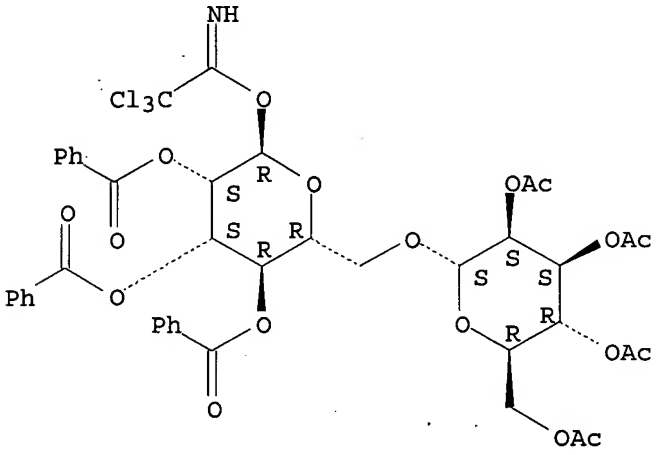
galactose, talose, gulose, allose, etc. The Lewis acid is Ag salt, BF3, or trimethylsilyl trifluoromethanesulfonate.

IT 287972-97-8P 287973-01-7P 398263-58-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation method of pyran-oligosaccharide with connection and trans glycosidic bond)

RN 287972-97-8 CAPLUS

CN α-D-Mannopyranose, 6-O-(2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

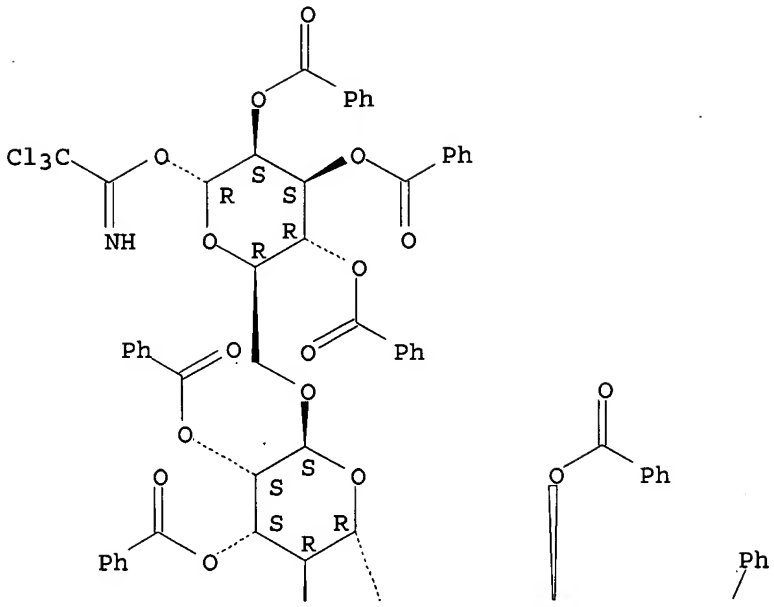


RN 287973-01-7 CAPLUS

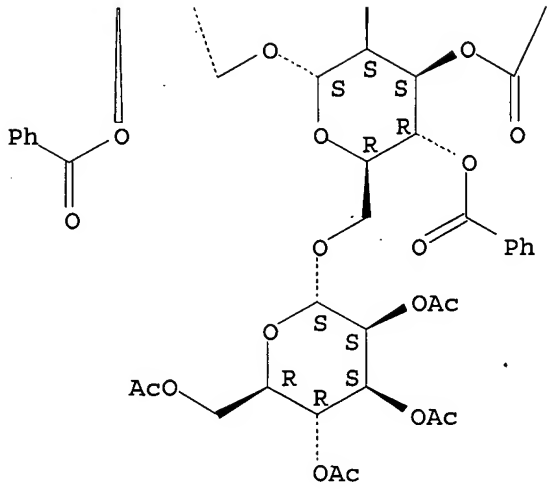
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



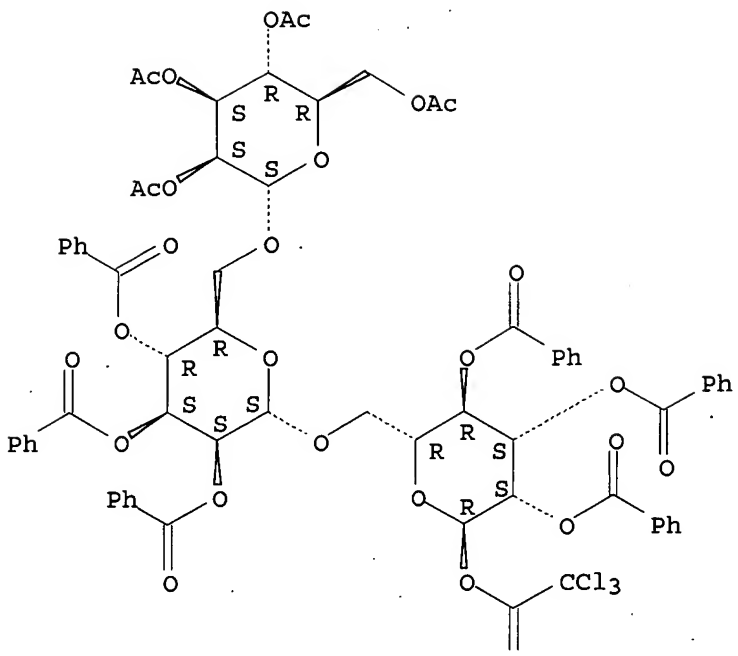
PAGE 2-A



RN 398263-58-6 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

L21 ANSWER 34 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:722177 CAPLUS
DOCUMENT NUMBER: 136:53965
TITLE: Synthesis of the Fully Phosphorylated GPI Anchor Pseudohexasaccharide of Toxoplasma gondii
AUTHOR(S): Pekari, Klaus; Tailler, Denis; Weingart, Ralf; Schmidt, Richard R.
CORPORATE SOURCE: Fachbereich Chemie, Universitaet Konstanz, Konstanz, D-78457, Germany
SOURCE: Journal of Organic Chemistry (2001), 66(22), 7432-7442
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:53965
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Retrosynthesis of the fully phosphorylated glycosylphosphatidyl inositol (GPI) anchor pseudohexasaccharide I led to four building blocks, two of which are known. The formation of the glucopyranosyl D-myo-inositol pseudodisaccharide building block is based on a readily available protected D-myo-inositol building block, which gave, via the 6-O-unprotected derivative and its glycosylation with known glucopyranosyl

donor, the desired compound Building block allyl 2-O-benzoyl-3-O-benzyl-6-O-(4-methoxybenzyl)-α-D-mannopyranoside, with the required access to all hydroxy groups being permitted, was prepared from mannose in five steps. From a readily available precursor, building block 3,4,6-tri-O-benzyl-2-deoxy-2-trichloroacetamido-α-D-galactopyranosyl trichloroacetimidate was obtained, which on reaction with allyl 2-O-benzoyl-3-O-benzyl-6-O-(4-methoxybenzyl)-α-D-mannopyranoside gave the disaccharide. The synthesis of the decisive pseudohexasaccharide intermediate was based on the reaction of the disaccharide with 3,4,6-tri-O-benzyl-2-acetyl-α-D-mannopyranosyl trichloroacetimidate, then with 6-O-t-butyldiphenylsilyl-3,4-di-O-benzyl-2-acetyl-α-D-mannopyranosyl trichloroacetimidate, and finally with the glucopyranosyl D-myo-inositol pseudodisaccharide building block. To obtain high stereoselectivity and good yields in the glycosylation reactions, anchimeric assistance was employed. To enable regioselective attachment of the two different phosphorus esters, the 6f-O-silyl group of the pseudohexasaccharide intermediate was first removed and the aminoethyl phosphate residue was attached. Then the MPM group was oxidatively removed, and the second phosphate residue was introduced. Unprotected I was then liberated in two steps: treatment with sodium methanolate removed the acetyl protecting groups, and finally, catalytic hydrogenation afforded the desired target mol., which could be fully structurally assigned.

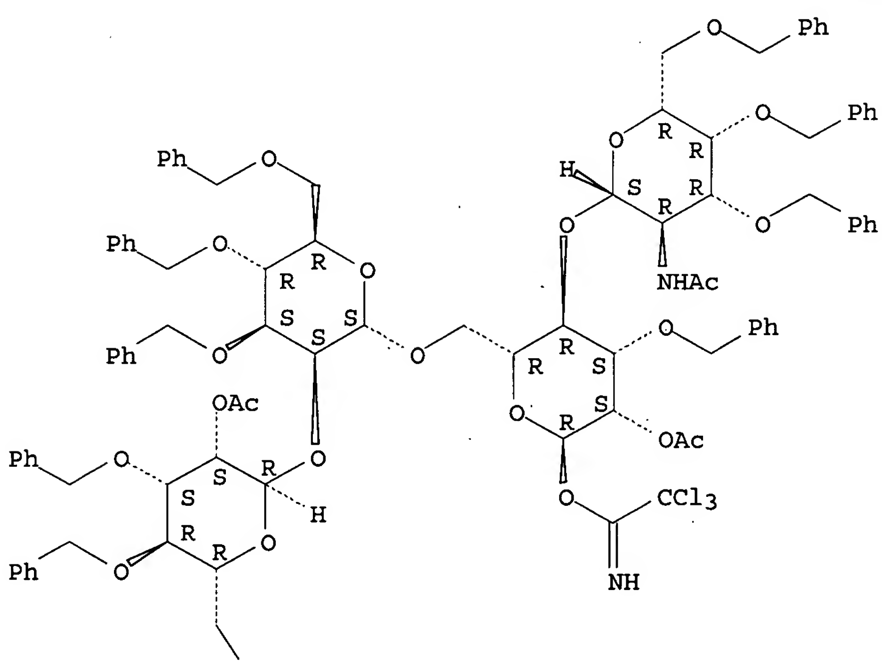
IT 380366-45-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(regio- and stereoselective synthesis of the fully phosphorylated GPI anchor pseudohexasaccharide of Toxoplasma gondii)

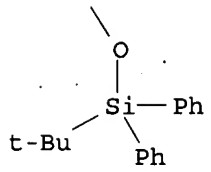
RN 380366-45-0 CAPLUS

CN α-D-Mannopyranose, O-2-O-acetyl-6-O-[(1,1-dimethylethyl)diphenylsilyl]-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-O-[2-(acetylamino)-2-deoxy-3,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1→4)]-3-O-(phenylmethyl)-, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



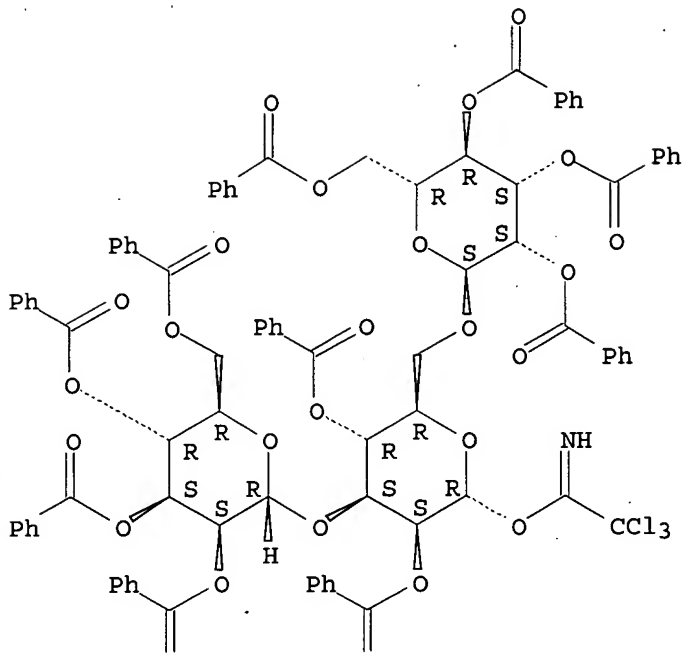


REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 35 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:155228 CAPLUS
DOCUMENT NUMBER: 134:296010
TITLE: Efficient and practical syntheses of three pentasaccharides core structures corresponding to N-glycans
AUTHOR(S): Du, Y.; Zhang, M.; Kong, F.
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Tetrahedron (2001), 57(9), 1757-1763
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:296010
AB Three branched pentasaccharide derivs. and one tetrasaccharide were synthesized efficiently. The advantages of this method include a one-pot facile synthesis of 3,6-differentially protected mannose building block and an efficient strategy for oligosaccharide assembly.
IT 314038-24-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(syntheses of three pentasaccharides core structures corresponding to N-glycans)
RN 314038-24-9 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-dibenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 36 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:936743 CAPLUS
DOCUMENT NUMBER: 136:263325
TITLE: A concise synthesis of antigenic factor 4 existing in Candida albicans
AUTHOR(S): Zhu, Yu-Liang; Chen, Lang-Qiu; Kong, Fan-Zuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Chinese Journal of Chemistry (2001), 19(12), 1289-1295
CODEN: CJOCEV; ISSN: 1001-604X
PUBLISHER: Science Press
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:263325

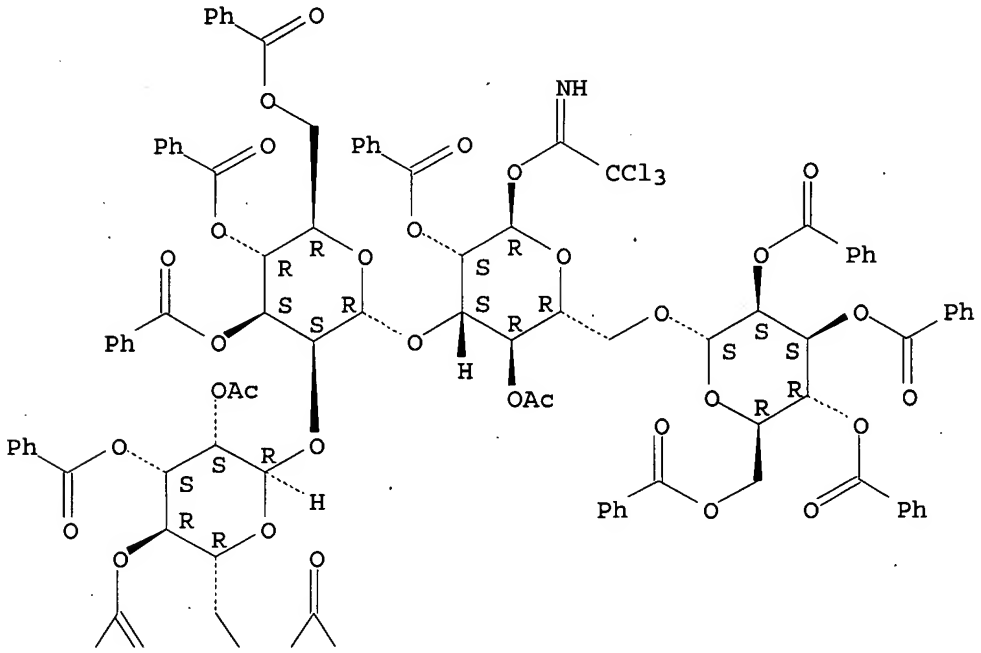
AB A concise synthesis of α-Man1→2-α-Man1→3-(α-Man1→6)-α-Man1→2-α-Man1→2-α-Man1→2-Man, the antigenic factor 4 existing in Candida albicans, was achieved via TMSOTf promoted condensation of the corresponding acylated tetrasaccharide donor with the trisaccharide acceptor.

IT 405111-67-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of antigenic factor 4 existing in Candida albicans via condensation of acylated tetrasaccharide with trisaccharide acceptor)

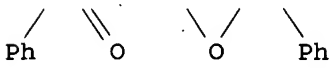
RN 405111-67-3 CAPLUS
CN α-D-Mannopyranose, O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 4-acetate 2-benzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 37 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:585612 CAPLUS
DOCUMENT NUMBER: 135:331603
TITLE: Highly efficient synthesis of the mannose nonasaccharide of the N-glycan expressed on the HIV glycoprotein gp 120
AUTHOR(S): Zhu, Yuliang; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, Beijing, 100085, Peop. Rep. China
SOURCE: Synlett (2001), (8), 1217-1220
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:331603
AB A highly concise and effective synthesis of the mannose nonasaccharide of the glycan expressed on the HIV protein gp 120 was achieved via TMSOTf

promoted selective 6-glycosylation of a tetrasaccharide 4,6-diol acceptor with a pentasaccharide donor followed by deprotection. The pentasaccharide was constructed by selective 3,6-diglycosylation of 1,2-O-ethylidene-β-D-mannopyranose with 2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl trichloroimidate while the tetrasaccharide was obtained by selective 3-O-glycosylation of allyl 4,6-O-benzylidene-α-D-mannopyranoside with 2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl trichloroimidate.

IT 369641-57-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

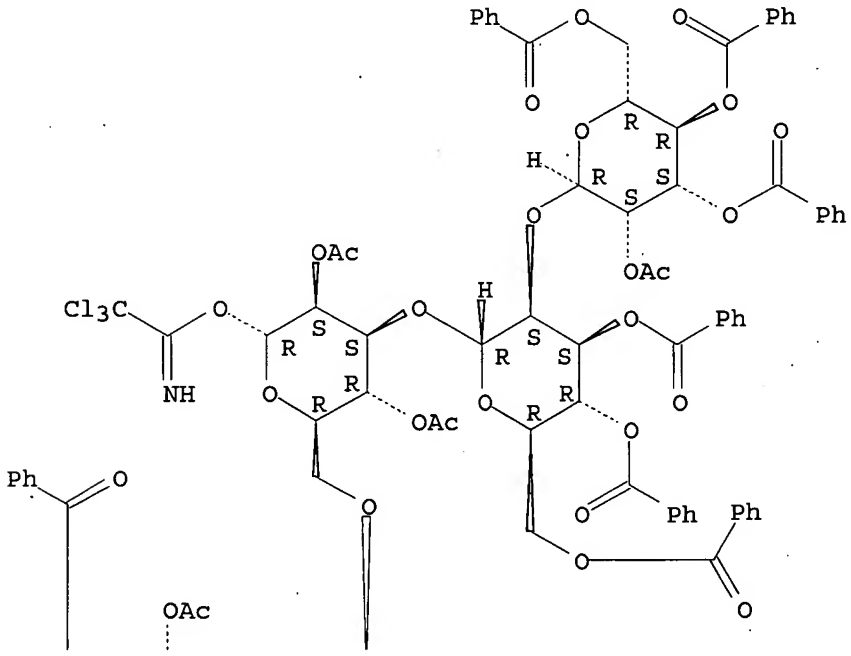
(synthesis of the mannose nonasaccharide of the N-glycan expressed on the HIV glycoprotein gp 120 via glycosylation reaction)

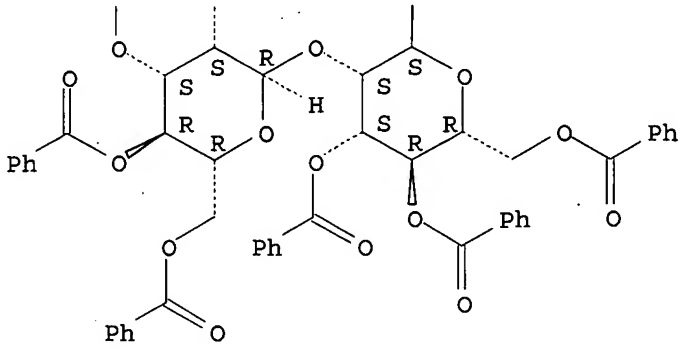
RN 369641-57-6 CAPLUS

CN α-D-Mannopyranose, O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-O-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[O-2-O-acetyl-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A





REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 38 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:330842 CAPLUS
DOCUMENT NUMBER: 135:166977
TITLE: A facile and effective synthesis of α-(1→6)-linked mannose di-, tri-, tetra-, hexa-, octa-, and dodecasaccharides, and β-(1→6)-linked glucose di-, tri-, tetra-, hexa-, and octasaccharides using sugar trichloroacetimidates as the donors and unprotected or partially protected glycosides as the acceptors
AUTHOR(S): Zhu, Y.; Kong, F.
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Carbohydrate Research (2001), 332(1), 1-21
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

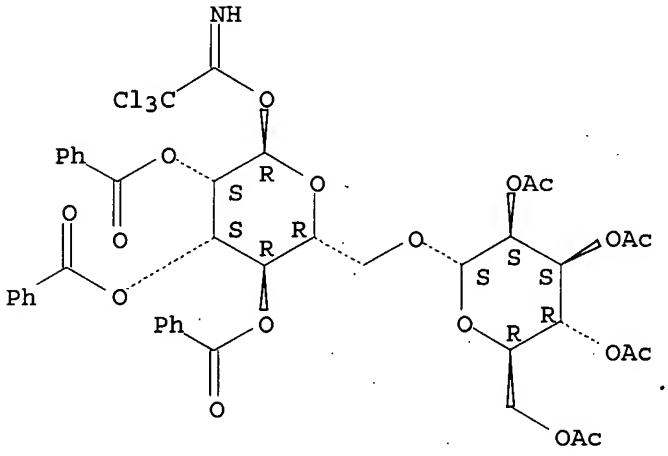
AB Reaction of 2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl trichloroimidate with allyl α-D-mannopyranoside in the presence of TMSOTf selectively gave allyl 2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)-α-D-mannopyranoside through an orthoester intermediate. Benzoylation followed by deallylation, and then trichloroimidation afforded the disaccharide donor 2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl trichloroimidate, while benzoylation followed by selective removal of acetyl groups yielded the disaccharide acceptor allyl α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranoside. Coupling furnished the tetrasaccharide allyl 2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranoside, which was converted into the tetrasaccharide donor 2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl trichloroimidate and the tetrasaccharide acceptor allyl α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-benzoyl-α-D-mannopyranoside. The dodecasaccharide was obtained by the coupling of a tetrasaccharide donor with the octasaccharide acceptor. Similar strategies were used for the syntheses of β-(1→6)-linked glucose di-, tri-, tetra-, hexa-, and octamers. Deprotection of the oligosaccharides in ammonia-saturated methanol yielded the free α-(1→6)-linked mannosyl and β-(1→6)-linked

glucosyl oligomers. The title compds. have been synthesized using sugar trichloroacetimidates as the donors and unprotected or partially protected glycosides as the acceptors.

IT 287972-97-8P 287973-01-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of α-(1→6)-linked mannose oligosaccharides, and β-(1→6)-linked glucose oligosaccharides using sugar trichloroacetimidates as the donors and unprotected or partially protected glycosides as the acceptors)

RN 287972-97-8 CAPLUS
CN α-D-Mannopyranose, 6-O-(2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

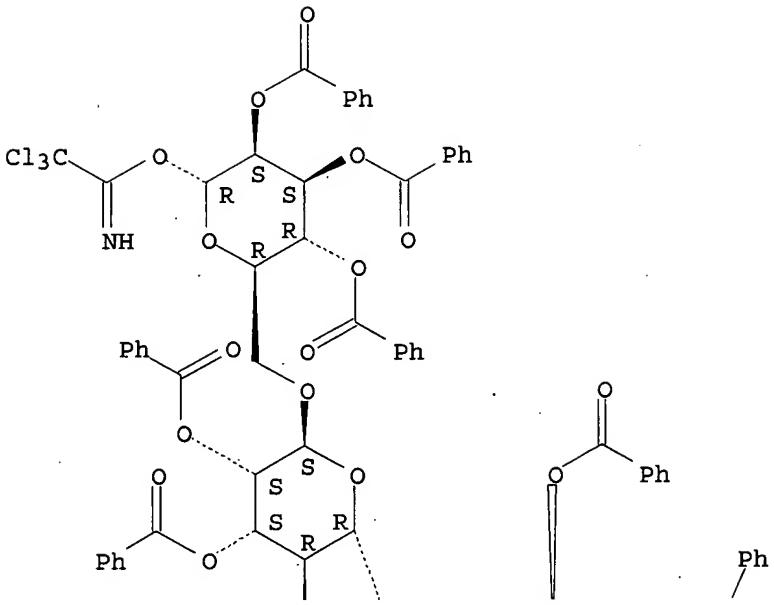
Absolute stereochemistry. Rotation (-).



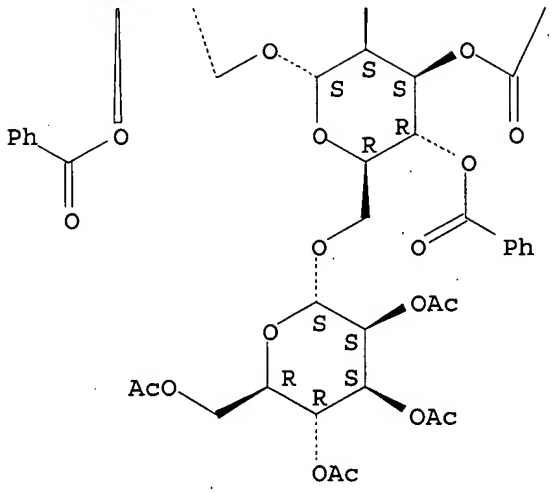
RN 287973-01-7 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 39 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:770265 CAPLUS
DOCUMENT NUMBER: 134:56882
TITLE: Highly Efficient and Practical Synthesis of 3,6-Branched Oligosaccharides
AUTHOR(S): Du, Yuguo; Zhang, Meimei; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Organic Letters (2000), 2(24), 3797-3800
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:56882

AB A one-pot formation of the 3- and 6-OH differentially protected sugar synthon was described. A mannopyranosyl pentasaccharide and a glucopyranosyl hexasaccharide were prepared employing this new finding.

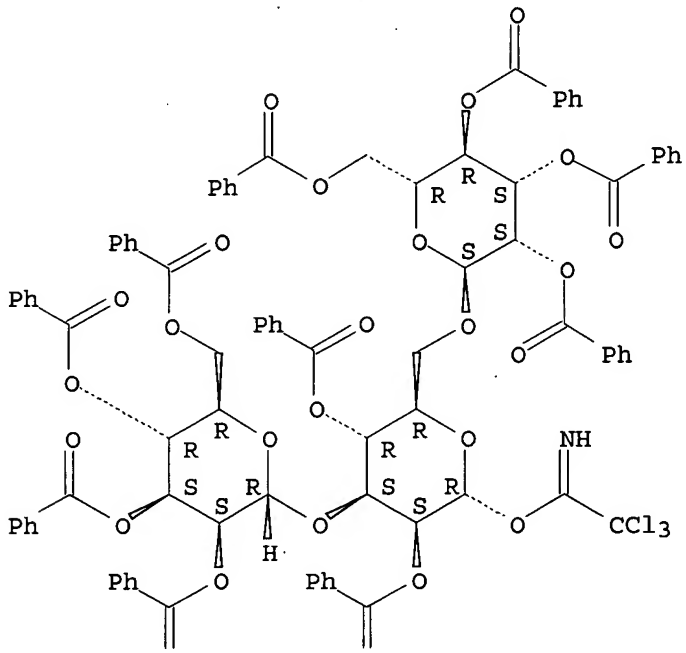
IT 314038-24-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(highly efficient and practical synthesis of branched oligosaccharides)

RN 314038-24-9 CAPLUS

CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-dibenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 40 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:743161 CAPLUS
DOCUMENT NUMBER: 134:29634
TITLE: Inositolphosphoglycan mediators structurally related to glycosyl phosphatidylinositol anchors: synthesis, structure and biological activity
AUTHOR(S): Martin-Lomas, Manuel; Khiar, Noureddine; Garcia,

Salud; Koessler, Jean-Luc; Nieto, Pedro M.;
Rademacher, Thomas W.
CORPORATE SOURCE: Grupo de Carbohidratos, Instituto de Investigaciones Quimicas CSIC-UNSE, Seville, 41092, Spain
SOURCE: Chemistry--A European Journal (2000), 6(19), 3608-3621
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:29634
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

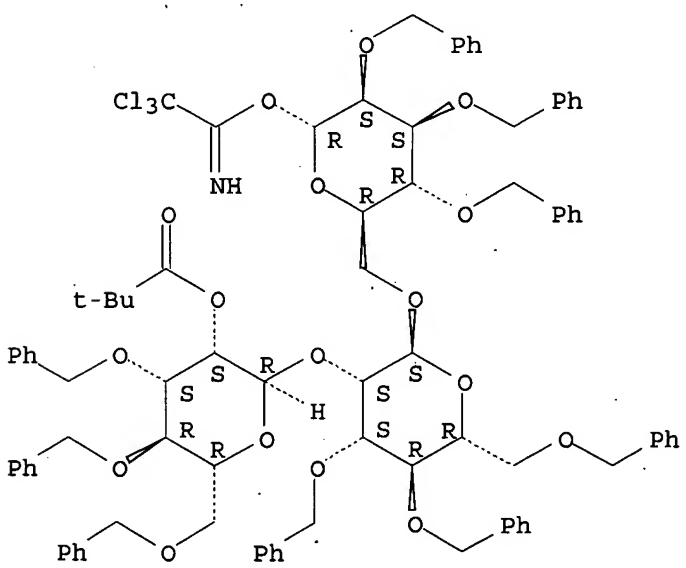
AB The preparation of the pseudopentasaccharide I, an inositolphosphoglycan (IPG) that contains the conserved linear structure of glycosyl phosphatidylinositol anchors (GPI anchors), was carried out by using a highly convergent 2+3-block synthesis approach which involves imidate and sulfoxide glycosylation reactions. The preferred solution conformation of this structure was determined by using NMR spectroscopy and mol. dynamics simulations prior to carrying out quant. structure-activity relationship studies in connection with the insulin signaling process. The ability of I to stimulate lipogenesis in rat adipocytes as well as to inhibit cAMP dependent protein kinase and to activate pyruvate dehydrogenase phosphatase was investigated. I did not show any significant activity, which may be taken as a strong indication that the GPI anchors are not the precursors of the IPG mediators.

IT 310870-51-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis, structure, and biol. activity of inositolphosphoglycan mediators structurally related to GPI anchors)

RN 310870-51-0 CAPLUS

CN α-D-Mannopyranose, O-2-O-(2,2-dimethyl-1-oxopropyl)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-2,3,4-tris-O-(phenylmethyl)-, 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 100 THERE ARE 100 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 41 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:2958 CAPLUS
DOCUMENT NUMBER: 134:163233
TITLE: Concise and effective synthesis of α(1→2)-linked manno- and rhamnopyranosyl oligosaccharides and related antigenic factor 4 and dominant of antigenic factor 6
AUTHOR(S): Zhu, Yuliang; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, Beijing, 100085, Peop. Rep. China
SOURCE: Synlett (2000), (12), 1783-1787
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:163233

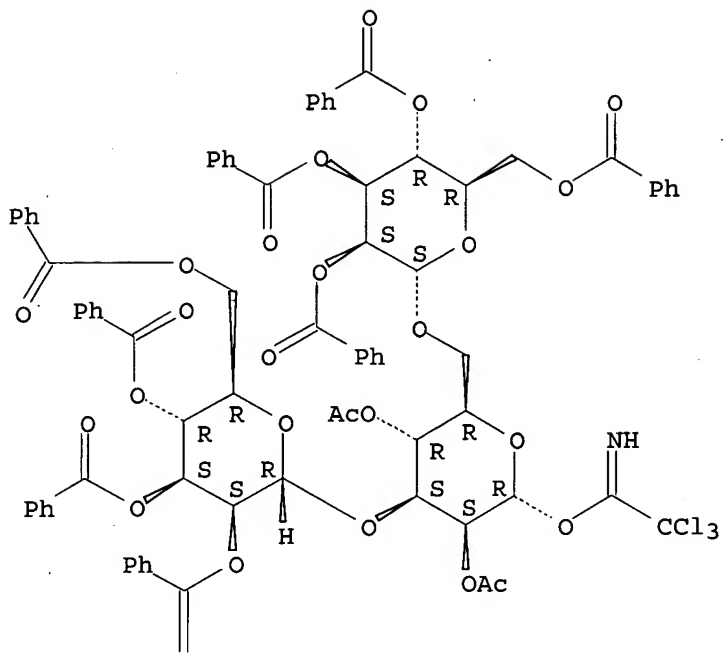
AB A highly concise and effective synthesis of α(1→2)-linked manno- and rhamnopyranosyl oligosaccharides was achieved via TMSOTf promoted condensation of the corresponding benzoylated monosaccharide alkyl orthoester. α(1→2)-Linked mannosyl tetra- and octasaccharide, rhamnosyl tetrasaccharide, antigenic factor 4, and dominant of antigenic factor 6 were readily synthesized by the new method.

IT 324041-38-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(concise and effective synthesis of α-(1→2)-linked manno- and rhamnopyranosyl oligosaccharides and related antigenic factor 4 and dominant of antigenic factor 6)

RN 324041-38-5 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-benzoyl-α-D-mannopyranosyl-(1→6)]-, 2,4-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 42 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:358888 CAPLUS
DOCUMENT NUMBER: 133:177371
TITLE: A facile synthesis of α-(1→6)-linked mannododecaose and β-(1→6)-linked glucooctaose using sugar trichloroacetimidates as the donors and unprotected or partially protected glycosides as the acceptors
AUTHOR(S): Zhu, Yuliang; Kong, Fanzuo
CORPORATE SOURCE: Research Center for Eco-Environmental Sciences, Academia Sinica, Beijing, 100085, Peop. Rep. China
SOURCE: Synlett (2000), (5), 663-667
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:177371

AB A facile synthesis of α-(1→6)-linked mannododecaose and β-(1→6)-linked glucooctaose was achieved using sugar trichloroacetimidates as the donors and unprotected or partially protected glycosides as the acceptors.

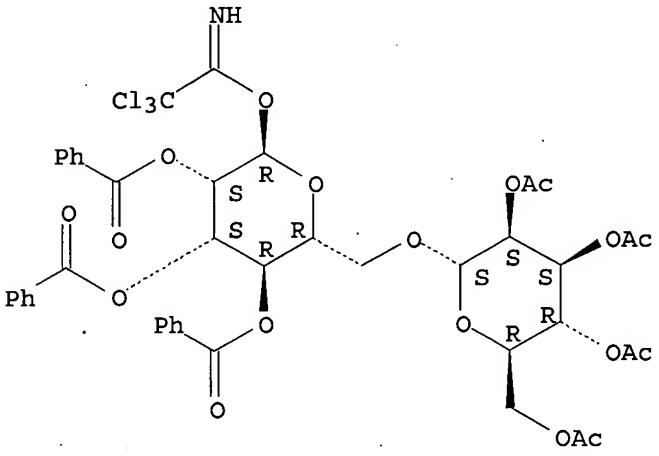
IT 287972-97-8P 287973-01-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of α-(1→6)-linked mannododecaose and β-(1→6)-linked glucooctaose using sugar

trichloroacetimidates as the donors and unprotected or partially protected glycosides as the acceptors)

RN 287972-97-8 CAPLUS

CN α-D-Mannopyranose, 6-O-(2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

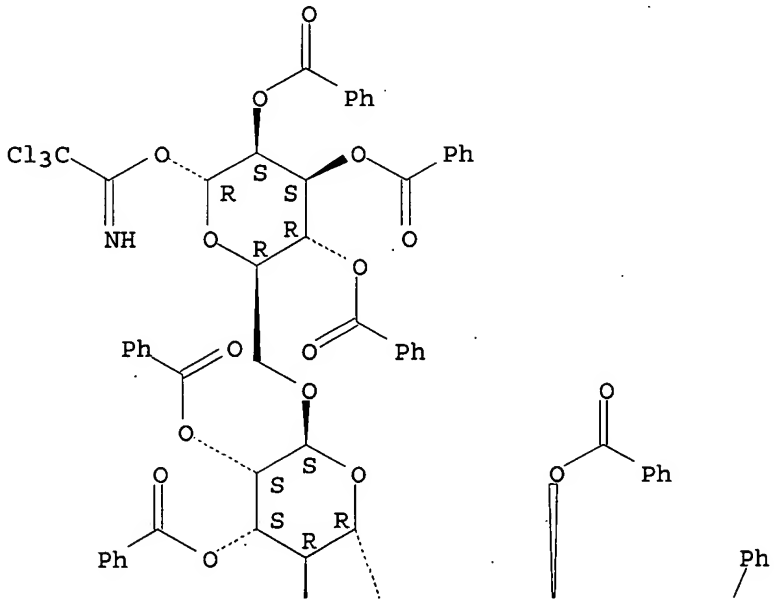
Absolute stereochemistry. Rotation (-).

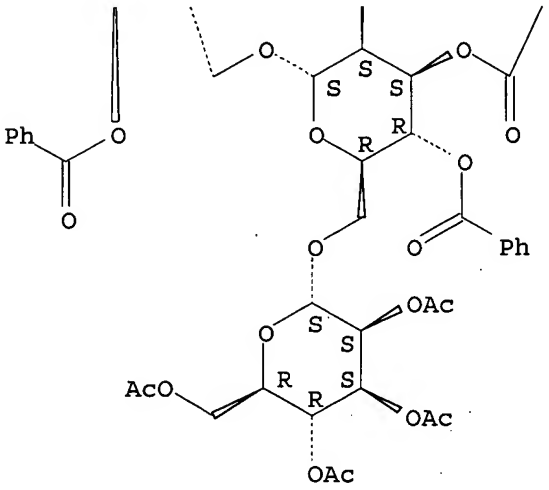


RN 287973-01-7 CAPLUS

CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-O-2,3,4-tri-O-benzoyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-tribenzoate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



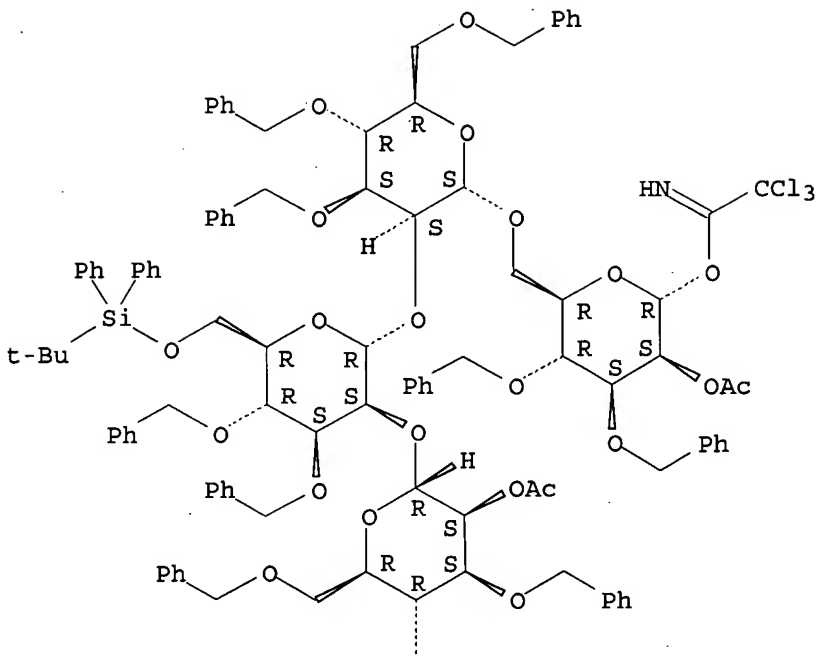


REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

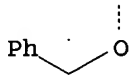
L21 ANSWER 43 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:281312 CAPLUS
DOCUMENT NUMBER: 131:19217
TITLE: Glycosylphosphatidylinositol (GPI) anchor synthesis based on versatile building blocks. Total synthesis of a GPI anchor of yeast
AUTHOR(S): Mayer, Thomas G.; Schmidt, Richard R.
CORPORATE SOURCE: Fakultat Chemie, Univ. Konstanz, Konstanz, D-78457, Germany
SOURCE: European Journal of Organic Chemistry (1999), (5), 1153-1165
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The total synthesis of a ceramide-containing GPI anchor of yeast by a combination of lipid, phosphate, and oligosaccharide chemical is reported.
IT 164070-37-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(total synthesis of GPI anchor of yeast)
RN 164070-37-5 CAPLUS
CN α-D-Mannopyranose, O-2-O-acetyl-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-6-O-[(1,1-dimethylethyl)diphenylsilyl]-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)-3,4-bis-O-(phenylmethyl)-, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 44 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:71535 CAPLUS
DOCUMENT NUMBER: 130:196884
TITLE: Synthesis of the glycosyl phosphatidyl inositol anchor of rat brain Thy-1
AUTHOR(S): Tailler, Denis; Ferrieres, Vincent; Pekari, Klaus; Schmidt, Richard R.
CORPORATE SOURCE: Fakultat Chemie, Universitat Konstanz, Konstanz, D-78457, Germany
SOURCE: Tetrahedron Letters (1999), 40(4), 679-682
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Disintegration of the target mol. I into building blocks A-E was performed. For D, an efficient synthesis of a mannose derivative, representing mannose residue C in the target mol., could be performed; the mannose derivative permits the required regioselective access to C-1, 2-O,

4-O, and 6-O. Reaction with a galactosamine donor led to D in high yield. E could be readily prepared from known mannosyl donors. Combination of A-E led to the fully O-benzyl protected target mol. in only eleven high-yielding steps, thus exhibiting the efficiency of this convergent strategy, which provides target mol. I.

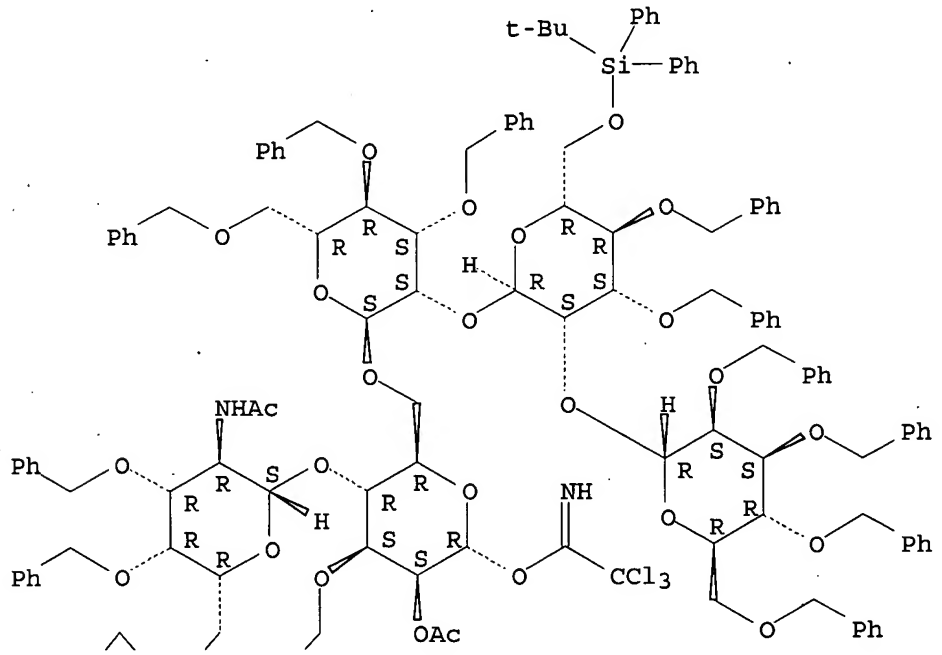
IT 220734-65-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of the glycosyl phosphatidyl inositol anchor of rat brain Thy-1)

RN 220734-65-6 CAPLUS

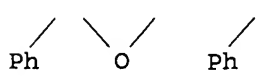
CN α-D-Mannopyranose, O-2-(acetylamino)-2-deoxy-3,4,6-tris-O-(phenylmethyl)-β-D-galactopyranosyl-(1→4)-O-[O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-O-6-O-[(1,1-dimethylethyl)diphenylsilyl]-3,4-bis-O-(phenylmethyl)-α-D-mannopyranosyl-(1→2)-3,4,6-tris-O-(phenylmethyl)-α-D-mannopyranosyl-(1→6)]-3-O-(phenylmethyl)-, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 45 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:669627 CAPLUS
DOCUMENT NUMBER: 130:38594
TITLE: A short, efficient synthesis of the octamannan residue of high mannose type sugar chains

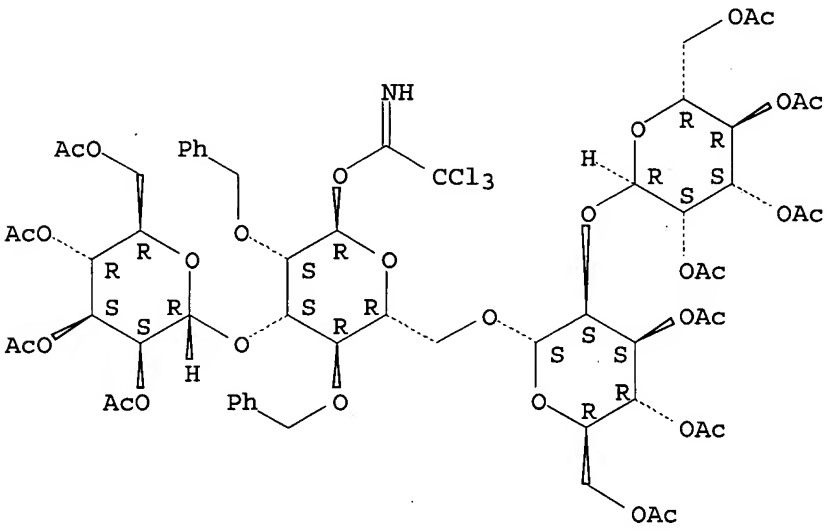
AUTHOR(S): Matsuo, Ichiro; Miyazaki, Tatsuo; Isomura, Megumi; Sakakibara, Tohru; Ajisaka, Katsumi
CORPORATE SOURCE: Meiji Inst. Health Sci., Meiji Milk Products Co., Ltd., Odawara, 250, Japan
SOURCE: Journal of Carbohydrate Chemistry (1998), 17(8), 1249-1258
CODEN: JCACDM; ISSN: 0732-8303
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 130:38594

AB An efficient route for the synthesis of octa-mannan (I), found in high mannose type sugar chains, is described. To construct I by as few synthetic steps as possible, we employed a chemoenzymic strategy: the enzymic synthesis of oligosaccharide blocks using glycosidases followed by chemical coupling to form a branched structure. By use of this methodol., many synthetic steps were eliminated and I was easily synthesized.

IT 216777-16-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(efficient synthesis of the octa-mannan residue of high mannose type sugar chains)

RN 216777-16-1 CAPLUS
CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→3)-O-[O-2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→2)-3,4,6-tri-O-acetyl-α-D-mannopyranosyl-(1→6)]-2,4-bis-O-(phenylmethyl)-, 2,2,2-trichloroethanimidate (9CI) (CA INDEX NAME)

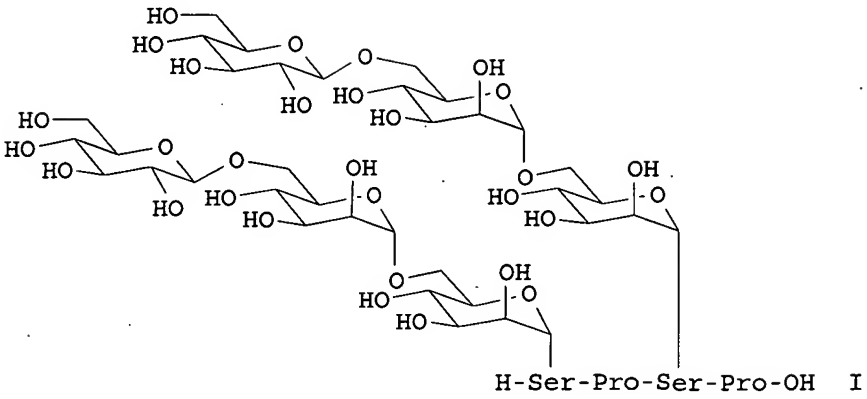
Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 46 OF 47 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:203370 CAPLUS
DOCUMENT NUMBER: 125:11419
TITLE: Synthesis of glycopeptides with phytoalexin elicitor activity. Part II. Syntheses of triglycosyl tetrapeptides and a hexaglycosyl tetrapeptide
AUTHOR(S): Takeda, Tadahiro; Kanemitsu, Takuya; Shimizu, Noriko; Ogihara, Yukio; Matsubara, Machiko
CORPORATE SOURCE: Kyoritsu Coll. Pharmacy, Tokyo, 105, Japan
SOURCE: Carbohydrate Research (1996), 283, 81-93

CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB A stereocontrolled synthesis of phytoalexin elicitor-active glycoprotein models is described. Glycosylation of trisaccharide 2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl-(1→6)-2,3,4-tri-O-acetyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-O-acetyl-α-D-mannopyranosyl trichloroacetimidate with Fmoc-Ser-Pro-OCH2Ph (Fmoc = 9-fluorenylmethoxycarbonyl) or Z-Ser-Pro-OMe (Z = PhCH2O2C) by BF3·OEt2 gave the triglycosyl-dipeptide derivs. The N- as well as the C-terminus of these triglycosyl dipeptides could be selectively deblocked, which are versatile intermediates for the completion of model compound synthesis of glycopeptide. Triglycosyl tetrapeptides and hexaglycosyl tetrapeptide I have been prepared by the convergent block synthesis.

IT 176842-83-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of serine glycopeptides as phytoalexin elicitor models)

RN 176842-83-4 CAPLUS

CN α-D-Mannopyranose, O-2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl-(1→6)-O-2,3,4-tri-O-acetyl-α-D-mannopyranosyl-(1→6)-, 2,3,4-triacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

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=> d his

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E? (P) SUPPORT?

=> d his

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FILE 'CAPLUS, MEDLINE' ENTERED AT 13:06:33 ON 25 OCT 2006

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L9             0 S ?MANNOSE? (P) ?PHOSPHATIDYL? (P) ?INOSITOL? (P) ?TRICHLOROACE
L10            1 S ?MANNOSE? (P) ?PHOSPHATIDYL? (P) ?INOSITOL? (P) ?TRICHLOROACE
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L3             2 S L1 SSS FULL
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L3            2 S L1 SSS FULL
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L3              0 S L1 SSS FULL
L4                STRUCTURE UPLOADED
L5              0 S L4 SSS SAM
L6              9 S L4 SSS FULL

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     FILE 'REGISTRY' ENTERED AT 17:35:28 ON 25 OCT 2006
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L2              0 S L1 SSS SAM
L3              0 S L1 SSS FULL
L4                STRUCTURE UPLOADED
L5              0 S L4 SSS SAM
L6              9 S L4 SSS FULL

     FILE 'CAPLUS, MEDLINE' ENTERED AT 17:46:51 ON 25 OCT 2006
L7             11 S L6
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=> d his

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     FILE 'REGISTRY' ENTERED AT 17:35:28 ON 25 OCT 2006
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L3            0 S L1 SSS FULL
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SAMPLE SCREEN SEARCH COMPLETED -      578 TO ITERATE

100.0% PROCESSED      578 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        10118 TO    13002
PROJECTED ANSWERS:               0 TO        0

L5            0 SEA SSS SAM L4

=> s l4 sss full
FULL SEARCH INITIATED 10:23:24 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    11665 TO ITERATE

100.0% PROCESSED    11665 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

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